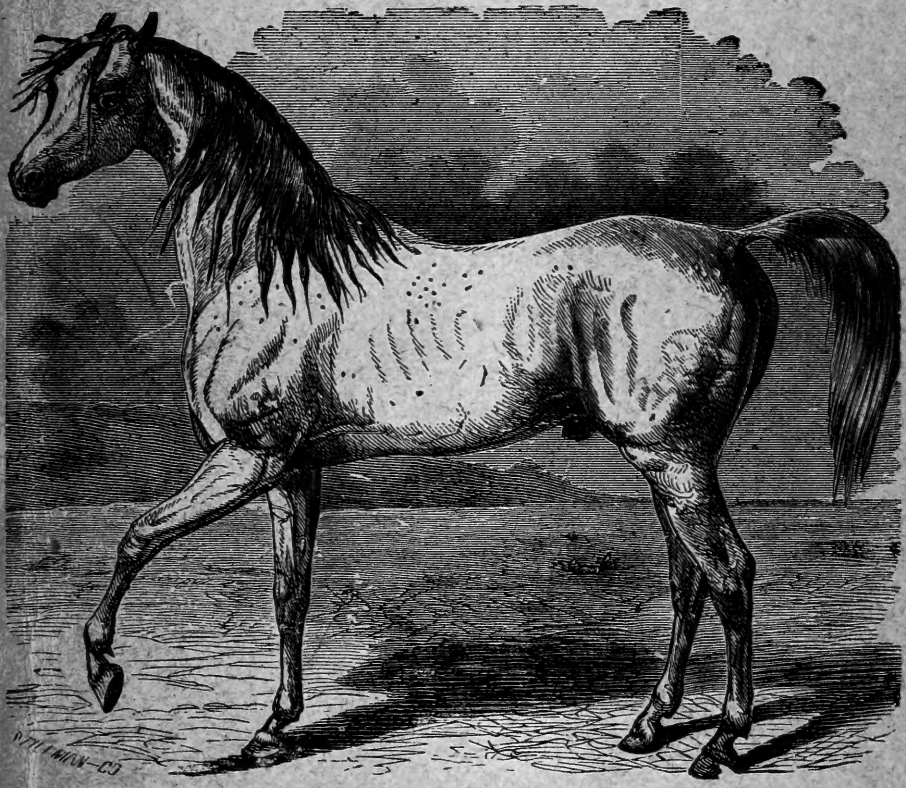
THE
Common-Sense Horse Book



—BY—

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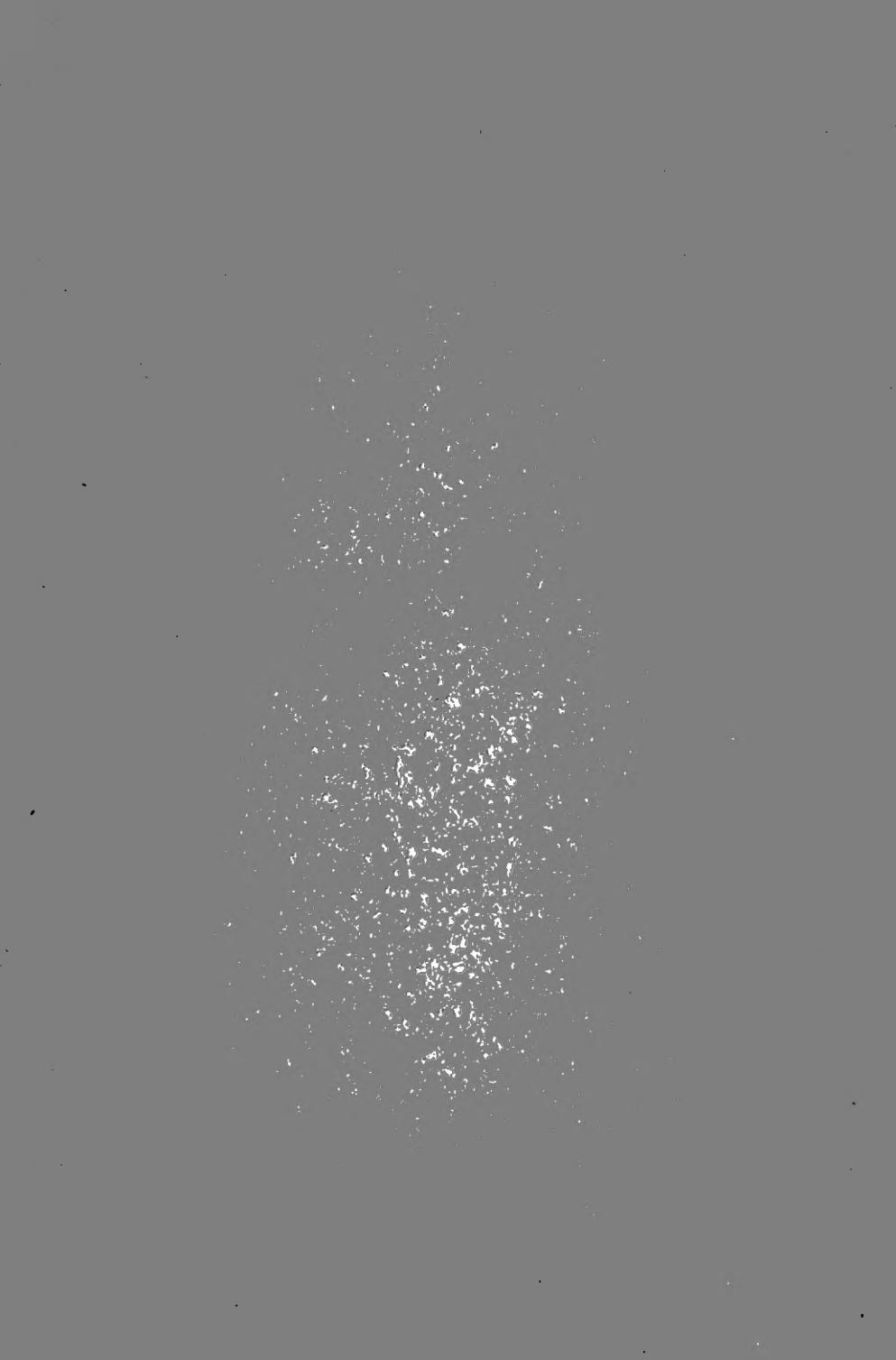

—THE—

COMMON-SENSE HORSE BOOK,

—BEING A—

CLEAR AND COMPREHENSIVE TREATMENT

—OF ALL—

DISEASES OF THE HORSE,

—COMPRISING A—

Diagnosis and Remedies for Chronic and Momentary Diseases,

—SUCH AS—

COLIC, BOTS, SPAVIN, RING BONE, FISTULA, POLL EVIL, DISTEMPER, QUINSY LUNG FEVER, EPIZOOTIC, HEAVES, STRING HALT, CRAMPS, BIG HEAD, SWEENY, SPRAINS, STIFLE, STABLE GALLS, SPLINTS, CURB, ENLARGED HOCK, RHEUMATISM, HOOF ROT, BLEEDING, SURFEIT, FARCY, WORMS, LAMENESS OF THE COFFIN BONE, WIND GALLS, THRUSH, WARTS, WEAKNESS ACROSS THE LOINS, AFFECTIONS OF THE URINARY ORGANS, SCRATCHES, GREASE HEEL, TETANUS OR LOCK JAW, AND A

NEW METHOD FOR DRENCHING A HORSE,

With Complete Directions for many New Liniments for the above Diseases never before offered to the Public.

Also, the Most Sensible Mode of Taming and Training the Horse,

As adopted by the Most Noted Horsemen in America.

—BY—

PROF. CHAS. U. PATTON,
VETERINARY SURGEON.

1904
THE NEW ERA PRINTERS,
CERRO GORDO, ILLINOIS.

PREFACE.

Having considered that the contents of a book were of more importance than the preface, and having devoted the bulk of my mental energies to the book itself, I of course can not be expected to write an elaborate preface; and as a preface is a sort of necessary introduction to a book, that few people take time to peruse, it will be worse than useless to expend time on a literary effort that will most likely be entirely overlooked, and be doomed to sink into oblivion, "unwept, unhonored, and unsung."

Therefore, without any further preliminary remarks, we present this work on the Horse to the public, making no apology for its short-comings, asking no undue credit for the good it may contain, and expecting that it will receive a reasonable share of criticism.

I merely set this waif of *"common sense"* afloat on the boundless sea of literary sense and nonsense, and am hopeful as to its fate, because I know that the good it contains needs only fair trial and justice, to prove that it does all I claim for

it. I do not desire to be considered egotistical, but I merely have a wish to do the Horse an act of justice, and to present to the world a humane mode of treatment of his diseases, which as a victim of mal-practice and cruel usage he most certainly deserves.

THE AUTHOR.

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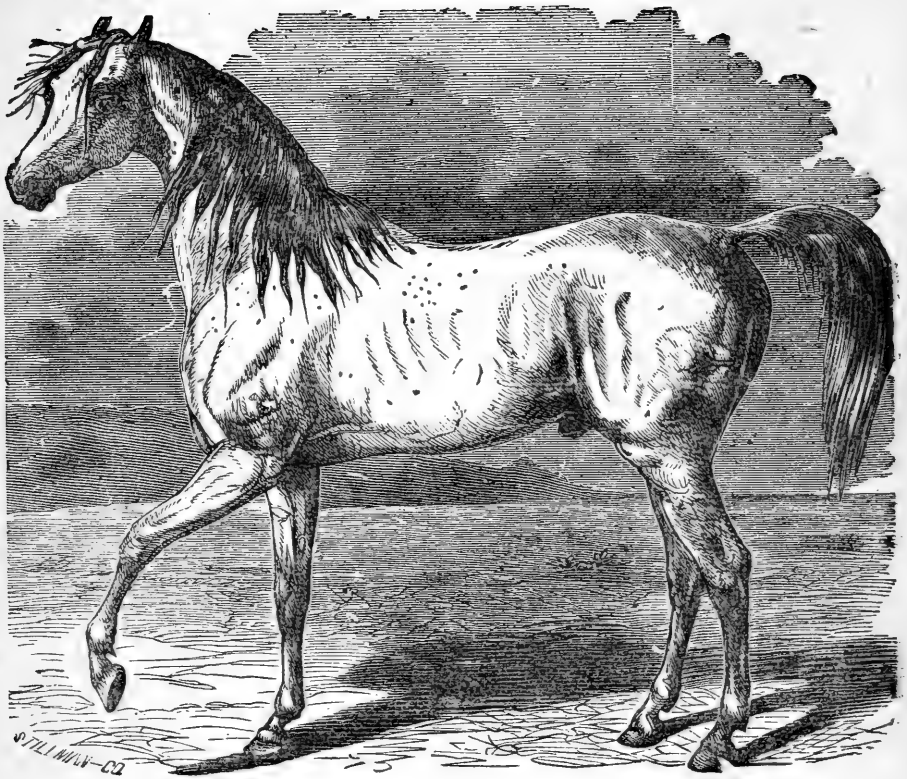

THE COMMON-SENSE HORSE BOOK.

BY PROFESSOR CHARLES U. PATTON.

Structure and Physical Properties of Bone.

Bone is one of the hardest structures of the animal body; it possesses also a certain degree of toughness and elasticity. Its color in a fresh state, is of a pinkish white, externally, and deep red within. On examining a section of any bone, it is seen to be composed of two kinds of tissue, one of which is dense and compact in texture, like ivory; the other consisting of slender fibres and laurellae, which join to form a reticular structure.

The compact tissue is always placed on the exterior of a bone; the fibrous tissue is always internal. The relative quantity of these two kinds of tissue varies in different bones, and in different parts of the same bone, as strength or lightness is requisite.

Bone is permeated during life by vessels, and is inclosed in a fibrous membrane, the periosteum, by means of which most of these vessels reach the hard tissue. If the periosteum be stripped from the living bone, small bleeding points are to be seen, which mark the entrance of the periosteal vessels. The periosteum adheres to the surface of the bones, in nearly every part excepting at their cartilaginous extremities.

ANATOMY.

It is not my purpose to fill up the pages of this little book, with a complete delineation of the anatomy and structure of the horse. It is more my object to give the diagnosis and treatment of disease; but as I think a few of the outlines given will not be amiss, I will mention the names of some of the principal bones, for the benefit of those who desire to know them.

The horse's structure is composed of two hundred and forty-seven bones. The spine consists of seven cervical, eighteen dorsal, and six lumbar vertebrae. The thorax is composed of the dorsal vertebrae, with eighteen ribs on each side, and the sternum which joins them.

The pelvis is made up of two ossa innominata, and one sacrum.

The tail contains about seventeen bones.

Each fore extremity is composed of the scalpula humerus, os brachii, and eight carpal bones; three meta-carpal, os suffraginis, os coronal, os pedis, os navicular, two ossa sessamoidea. Total on both extremities, forty.

The hind extremity has the femur, patella, tibia, fibula, six tarsal bones, three metatarsals, os suffraginis, os coronae, os pedis, os navicular, two ossa sessamoidea. Total for both, thirty-eight.

The cranium consists of ten bones.

The face and lower jaws have eighteen bones.

There are forty teeth.

The bones of the internal ear, number four in each organ. Total, eight.

The bone of the tongue consists of five sections.

These are the principal bones of the horse, and they are differently classified by different writers on the horse.

Some consider the sacrum to be composed of five bones, called the sacral vertebrae. Others assert that the tail is composed of fifteen bones.

The bones of the horse are differently constructed, some are solid, some hollow, and some are soft and spongy. The spongy bones are the ones that are most

liable to disease and enlargement. The os pedis and os naviculare are especially subject to disease; as they are the bones within the hoof, and are exceedingly liable to injury.

The bones that are hollow are the ones that are strongest; as they are intended to be exposed to the greatest amount of strain, and to bear the burden of weight. Diseases of the bones are the ones that yield least readily to treatment.

A HORSE'S AGE.

It is a very difficult matter to lay down an exact rule so that any person can fully and satisfactorily determine the age of a horse. Some depend entirely upon the teeth of a horse, in discovering his age; but there is a great difference in the shapes of the teeth, and I find but few persons, indeed, who can tell the age to a certainty, though I do find a great many pretenders who assert that the teeth are an accurate guide.

For my own experience in the matter, I must say it is very difficult for me to ascertain the exact age of a horse, if I judge by the teeth; for, horse's teeth differ just according to the different ways in which they (the horses) have been kept.

As it is impossible to give a perfect guide to a horse's age, I shall not occupy space in the book by laying down rules, that are in many instances inaccurate, but will only give the number of teeth, and not elaborate on the subject. A horse has forty teeth, when he has what is called a "full mouth," he has six nippers, twelve grinders and two tushes in each jaw.

As almost every one that is accustomed to horses, can tell a young horse from an old one, by the general appearance, and can tell the age up to five years, I will

only explain another way by which a person can not be mistaken in telling whether a horse is under or over ten years old. That is, by the lachrymal duct, that conveys the moisture from the eye to the nostril. It has a little opening in the nostril, when the animal is under ten years of age, this opening lies in a little oblong slip, and when he is over ten, it becomes perfectly round.

The Blood.

The blood is a fluid holding a large number of minute cells or corpuscles in suspension. Its general physical characters are so well known that we need merely say that it is of a dark red or purple color in the veins, and of a bright red or scarlet in the arteries; that it is viscid, drying rapidly, and with a clammy feeling; salt to the taste, slightly alkaline, and with a specific gravity of about 1055.

GENERAL COMPOSITION OF THE BLOOD.

On standing, blood, under ordinary circumstances, soon separates into two parts—a fluid called the "serum" and a clot or "coagulum." The latter is not merely the cells or blood-corpuscles spoken of above as held in suspension, and which have subsided out of the fluid, but consists besides of fibrin which has been held in solution in the fluid blood, and which in its solidification has been inclosed and implicated the blood-corpuscles as they subside. The blood is thus seen to consist naturally of two parts, the plasma or liquor sanguinis, a fluid, rich in fibrin and the blood cells or corpuscles; and when drawn from the body, of two parts composed differ-

ently to the above, viz., the clot, which comprises the blood-corpuscles and the fibrin of the plasma, and the serum which consists of the remainder of the plasma.

The blood-corpuscles, blood-disks, or blood globules, as they are most commonly called are of two kinds, the red and the white. The red globules are far the more numerous, and are those which are always intended when the expression blood disks or blood-globules is used without any other qualification. Their color appears of a faint yellow when they are seen singly, but it is to their aggregation that the blood owes its red hue.

When the blood is circulating under the microscope the blood-globules are seen to be separate from each other, and also separated from the wall of the vessel by an interval or "lumen."

Their shape is very soon influenced by the medium in which they are placed, and by the specific gravity of that medium. In water they swell up, lose their color and cease to be visible, leaving the white corpuscles in the field. Solution of salt or sugar denser than the serum, give them a stellate appearance, and the usual shape may be restored by diluting the solution to the proper point. A solution of the proper

strength merely separates the blood globules mechanically without changing their shape.

There can be no doubt that the difference in color between arterial and venous blood must be due to some minute difference in the red blood globules, and is also in the highest degree probable that the chemical differences between these two kinds of blood are due, in part at least, to such differences; but the change has not hitherto been rendered perceptible either to the microscope or to chemical analysis.

At the same time, the researches of Prof. Stokes show that the coloring matter of the blood produces different effects on the solar spectrum, according as it is in a more or less oxidized condition; it is in the highest degree probable that the same change in the oxidation of the contents of the blood-globules produces the difference of color between arterial and venous flood.

The fluid part of the blood, the liquor sanguinis or plasma is again composed of a permanently fluid portion—the serum—and of fibrin, which coagulates spontaneously when out of the body, but which is held in solution during life.

The fibrin can be separated from blood after it has been drawn by whipping it with twigs, to which the

fibrin as it coagulates adheres. The liquor sanguinis may be obtained free from the red corpuscles "by mixing fresh-drawn blood with six or eight times its bulk of serum, allowing the red particles to subside, and then decanting the supernatant fluid and filtering it through blotting paper."

The offices and uses of the fibrin as well as its real nature, whether it exists as such in the living blood or is a product of the death of that fluid, have been and are the subjects of much difference of opinion.

The fluid left after the coagulation of the fibrin, which is the serum of the blood properly so-called, is yellowish and contains so much albumen that it solidifies almost completely on being heated. It is alkaline from the presence of free soda and carbonate of soda.

The chemical composition of the blood is complex as might be anticipated of a fluid from which all the various tissues of the body are to be formed; and it must, of course, vary in various parts of the circulation.

LYMPH AND CHYLE.

The lymph and chyle are almost identical in constitution though the proportion of their constituent varies in different parts of the vascular system. The lymph is the secretion of a system of vessels and

glands which takes up from the worn out tissues that which is still available for purposes of nutrition, and returns it into the veins close to the heart, there to be mixed with a mass of blood.

The chyle is a fluid secreted by the villi of the small intestines from the food. It is intermingled with the lymph, and is poured into circulation through the same channels.

In other respects lymph and chyle are indistinguishable by microscopic examination, but in external appearance they are very different.

Chyle is a milk-white fluid which coagulates spontaneously, and then on standing separates more or less completely into a clear part, the liquor chyli, which is identical with the liquor sanguinis, and a thinnish jelly-like clot, consisting of fibrin in which chyle-corpuscles and the fatty molecules are entangled. The white color of the chyle is due to the abundance of the molecular base. Lymph, as its name implies, is a watery fluid. In the lymph the molecular base is absent, and the lymph-corpuscles are very few in number, and are said by Kolliker to be absent in the smaller vessels. According to the same author, the size of the lymph-globules increases as the fluid ascends higher in course of the circulation. In this view the lymph is at first a

mere albuminous fluid, and the chyle at first a mere albumino-fatty fluid, the cells in both being produced during the passage of the fluid through the glands, and being further elaborated, and even new cells produced by the division of the old ones in the course of circulation.

The Pulse.

The pulse is one of the most important aids the veterinarians have to guide him in making a diagnosis of a disease, and in ascertaining the state of the general system.

The pulse indicates the number of pulsations of blood from the heart. There can be no increased excitement of the system, whether brought on by exercise or by intense emotion, but it causes a corresponding increase of action of the heart; by this disease is readily detected in the horse.

The pulse may be discovered and counted in many places, as each artery is a pulse, but is most easily discovered on the lower side of the jaw bone, as the sub-maxillary artery passes through this bone, and it may be distinctly felt on the leg, between the knee and the pastern joint. When the fingers are gently pressed upon either of the above mentioned places, there will be no trouble in finding a pulse.

The natural beating of the pulse of a heavy draught horse in a healthy condition, is about thirty-six pulsations per minute. In a light nervy horse, they will be from forty to forty-two per minute.

When a horse becomes a little sick, the pulse will

increase to from forty-five to fifty, then the horse is not considered in a dangerous condition, but when the pulse increases to from sixty to seventy-five pulsations a minute, the animal needs your immediate attention; for, from ninety to one hundred, death generally ensues.

A quick, throbbing pulse indicates inflammation.

A hard pulse—feverishness.

A small wiry pulse—general inflammation.

A full corded pulse—always indicates some old chronic disease.

An oppressed pulse—some inflammation of the lungs.

Weak pulse—general debility of the system.

Common sense should be employed in making up the mind with respect to the quickness of pulse in different animals such as, taking into consideration the temperament of the horse, and the kind of work he is employed in. For instance a horse that is overheated may quicken the pulse in many cases from six to twelve beats per minute; sometimes a horse being frightened will cause the pulse to increase from eight to ten pulsations per minute.

BLEEDING OR LETTING BLOOD

Is a common practice among veterinarians, but as a general thing in my practice, I find blood-letting

unnecessary. I consider the blood the life of the horse, and as every horse is supposed to have one pound of blood for every sixteen pounds of flesh, you will find that for the amount of blood taken, the horse will be required to receive a certain amount of nutrition, in order to gain it back again, and to regain his strength.

The only benefit that is derived from bleeding is that it relaxes the system, and this may be done very readily and much more conveniently, by using arterial sedatives. But in cases of fracture or of determination of blood to the brain, blood-letting may become necessary, but only in extreme cases.

The most convenient place to bleed a horse, is in the jugular vein, as the blood flows faster at that point, and, as the object is to affect the general circulation, it can be done at this point more easily than at any other. The operation is performed by placing a strap or cord around the animal's neck and drawing tight. This will throw the vein out more prominently; then take a common fleam, place it in a direct line over the vein and strike it rather forcibly with some instrument, in order to cut through the vein.

The operator should use judgment as to the amount of blood he draws, as some horses will not bear to have as large a quantity taken as others. He should also keep

his hand on the horse's pulse, and whenever it begins to falter, the blood should be stopped at once; for if you bleed beyond that, the vitality of the horse will be affected, and you will do more harm than good.

Lung Fever.

This is one of the most dangerous of diseases and is very difficult to treat with any success. We have very few veterinarians who can treat this terrible malady with skill. It should have the most prompt treatment in its earliest stages. This disease follows many others, such as bronchitis and pleurisy, and in many cases makes its appearance without the symptoms of any other disease whatever; the horse through some cause, catching cold, it is first perceivable by the horse taking a severe chill, and a very high fever follows immediately; ofentimes there will be from two to three chills before the disease fully develops itself.

Then it needs the strictest attention and utmost care, for it often baffles the skill of the best in the profession; as some cases are so obstinate that they will not yield to any medicine, and as it runs its course with great rapidity.

Some horses have been known to die in from twelve to twenty-four hours after the disease first developed itself.

SYMPTOMS.

The prominent symptoms in this disease are as follows: The horse always droops his head and labors

under great difficulty in breathing; his extremities will be extremely cold, which may be discovered by placing the hands on the legs of the horse; his pulse will be found to have from fifty to sixty pulsations per minute; he remains standing, refusing to lie down, his fore extremities are extended wide apart, in order to expand his lungs.

TREATMENT.

The object in treating this disease is to control circulation. This may be done by using the most powerful arterial sedatives, give:

Tincture Veratrum Viride	2 oz.
" Digitalis	1 oz.
" Aconite	½ oz.
Sulphuric Ether	½ oz.

Place a light teaspoonful on the horse's tongue every hour for three successive hours; then stop for four hours, and if the pulse appears high and corded, resume the medicine for three doses; but if the pulse is lowered it is unnecessary, as this disease must be governed entirely by the pulse. The horse's legs should be bathed in a strong solution of English mustard and vinegar; they should be well bandaged from the pastern joint to the knee.

The horse should be well clothed and kept in a well ventilated stable. This treatment should be kept up

until the pulse is sufficiently lowered; then the following medicine should be administered:

Tincture Muriate of Iron.....2 oz.
Quinine.....30 gr.

One teaspoonful should be given three times per day. This treatment rarely ever fails if the disease be taken in its earliest stages.

Below is given some of the most favorable symptoms, by which it can be told whether the animal is improving or not; also some of the most unfavorable symptoms.

The first favorable symptom will be noticed by the return of warmth to the animal's extremities, as circulation has then resumed a more natural course, and the pulse beats more regularly.

If the animal is not improving but growing worse, the pulse will grow quicker, the nostrils become paler and assume a dirty color, the coldness of the joints will increase.

The animal sometimes relaxes into a comatose state, and becomes entirely stupid; frequently the disease runs its course with such rapidity that the lungs become hepatized, then the case is beyond the reach of medicine.

Quinsy.

The practitioner may be easily mistaken in making a diagnosis of thisdisease, as the symptoms are similar to those of lung fever.

It is first perceptible by the horse drooping, and being short of breath, and a seeming difficulty of getting his breath, sometimes he is given to wheezing; this is caused by an inflammation of the glottis, and if any one puts his ear to the windpipe, he can hear a sort of gurgling sound.

This disease affects the larnyx, and all the glands of the head; they become enlarged, and cause an enlargement on the outer surface. This disease in its worst stages, is similar to diphtheria in the human family. It almost invariably impoverishes the blood. An animal having quinsy should be placed at once under the most skillful treatment, where it will receive the most assiduous attention; as the disease runs its course with great rapidity, and horses will often suffocate in a very short space of time.

TREATMENT.

Whatever is done for quinsy, must be done as soon as the symptoms indicate the disease. The most

prominent symptoms are coldness of the ears and legs, and quickness of the pulse. The first thing to be done is to govern the blood and regulate the circulation. This may be done by using the following combination:

Tincture Veratrum Viride.....2 oz.
" Digitalis .....2 oz.
" Ether.....½ oz.
" Aconite .....½ oz.

Give fifteen drops on the tongue every hour until the pulse is lowered. Then the horse must be placed under constitutional treatment; this may be done according to the following directions:

Mix Muriate of Iron.....2 oz.
With Quinine.....30 gr.

Add a tablespoonful of water, and give every three hours. Bathe the glands of the throat with the White Liniment. The animal should be well clothed, and kept in a clean, airy stable, and his legs should be bathed with a mixture made of one quart of vinegar and one ounce of English mustard, as this warms them and assists circulation.

A REMARKABLE CASE.

During the preparation of this book for press, a case of quinsy came under my notice, which in the opinion of the public, acquainted with the case, it was almost

useless to undertake. I was called upon by Messrs. Routh & Lackey, well known horsemen throughout the country, to take charge of a valuable animal almost hopelessly afflicted with the quinsy. When I first saw him, I found him short of breath, and wheezing so that he could be heard the distance of a square. Pulse very quick and hard; the extremities and ears quite cold, and he looked as if it would baffle the skill of the most practiced veterinarian to save him. But remembering the old thread-bare saying "while there is life there is hope," I commenced the most rigid treatment; treating the symptoms as they developed themselves.

I first lowered his pulse, by using the remedies given above for quinsy. I then administered a dose containing

Iodide of Potassium	4 gr.
Quinine	6 gr.
Opium	1 gr.

This appeared to relieve him considerably. I continued this treatment for two days, giving the powder every four hours. I applied a fly blister to the glands of the throat; the object of this being to draw the inflammation to the outer surface. His breath becoming fetid, I found it necessary to use a disinfectant.

After trying all the old disinfectants known to the profession, without any satisfactory result, I remedied the difficulty by using chlorinated soda, which is a combination of soda and lime. I also found that this assisted him in breathing.

The horse remained in this very discouraging condition for several days, without eating, being kept alive by giving him the best of brandy and milk, in equal proportions, together with a small quantity of corn meal gruel. And had I not known of a better mode of drenching, than the ordinary method, it would have been impossible to administer any medicine to him.

After giving him the closest attention for about two weeks, he began slowly to recover.

I merely give this case, because I think it will be of benefit to some who may have horses afflicted in the same way.

Distemper

Is a disease that all horsemen are acquainted with, and is more prevalent among young horses than old ones. It is engendered by a change of stables and of air, and also by cold of any kind. It affects the larynx, and the membrane of the trachea. Distemper in most cases yields readily to treatment. I have used the following treatment with success:

Chlorate of Potash.....1 oz.
Honey.....1 pt.

Mix well together and give a tablespoonful three times a day. Put it well back upon the tongue with a small paddle. Use the White Liniment on the glands of the throat, and keep the horse well clothed in a good, airy stall. Feed nothing but soft food, such as bran mashes with oats mixed in it.

As a great many people think it necessary to smoke a horse that has distemper, I will give my mode of procedure. In my opinion, horses rarely ever derive any benefit from smoking; but if I were to smoke a horse, I would do away with the old practice of using leather, feathers and brimstone, as it is very offensive both to man and horse. I would prefer to use a medicated paper, as it is more simple, and if there is any

virtue in smoking at all, the animal will receive more benefit from it than from the others. It is made by making a strong solution of salt petre, and then soaking common brown paper in it for five minutes, dry it perfectly dry; when it is set on fire it will burn like a fuse, and the horse can be smoked with it very readily. I have also used an antiseptic and derived great benefit from it. The one I use is made by taking one ounce of glycerine and adding twelve drops of carbolic acid, and by swabbing out the nostrils thoroughly, I generally bring the disease to a culmination, as this produces a free running at the nose.

Epizootic.

This disease is of recent development, and was prevalent throughout the country in the last of the year 1872 and the first part of 1873.

It was never known in America before the year of 1872, but was in Germany in 1800. A German prophet foretold that epizootic would make its appearance in America in the year 1872. I have but little faith in any prophecy, but strange to relate, this one was verified.

I have never seen anything written on the subject of epizootic in any of the works on the diseases of the horse, except in a small volume published by Professor Rockwell, in which he makes a slight allusion to the disease, but does not expatiate on the subject.

It is a disease peculiar to itself, and coming upon the country very suddenly, it took all veterinarians by surprise.

It was first observed in the Eastern States, and in the cities of New York and Boston; it traveled with rapidity, and like the "star of empire" took its way westward, never once stopping until it reached the Pacific shores. It was no respecter

of horses, and all, from the finest thoroughbred, down to the commonest scrub, suffered equally and alike.

There was never known such a universal epidemic among horses, and the victims of this malady were not a few. There seemed to be no special cause for it, and it almost always made its appearance where it was least expected, and where the greatest pains had been taken to prevent it. Taken all in all, it caused one of the greatest sensations of the kind, the country has ever known, and people were made to fully realize the value of the horse, as the business of the country was almost completely suspended.

In regard to my own personal experience in epizootic, and I can speak only from my own experience; I may say that I have treated scores of cases, among the most prominent was a Glencoe horse owned by Mr. Richard Anderson, a well known horseman of Xenia, Ohio. It was one of the most aggravated cases that I met in my travels. I found this animal's pulse beating about eighty pulsations per minute; he was frothing at the mouth, and apparently so much choked up that it was extremely difficult for him to breathe.

I at once lowered his pulse by administering the following medicine;

Tincture of Veratrum Viride ..... 2 oz.
Tincture Digitalis ..... 1 oz
Aconite ..... ½ oz

Putting a teaspoonful of the above mixture on his tongue every thirty minutes, for three doses, then stop four hours, then I waited for four hours, and then resumed the treatment.

I cleansed his mouth with a solution of chlorate of potash, then made an external application of the Quick Cure on the glands of the throat, then I took

Muriate of Iron ..... 1 oz.
Adding Quinine ..... 10 gr.

And gave him a teaspoonful every four hours; this relieved him in six hours, so that he was considered out of danger, and continued to grow better until he entirely recovered. But I cannot take all the credit to myself, for I must say that I have never met with a gentleman who took better care of an animal, than did Mr. Anderson take of this one, and of course, the recovery was due in some measure to the excellent nursing the horse received, as this is one of the essentials in treating any and all diseases.

Should the epizootic become prevalent again, at any time, I should advise this same mode of treatment.

Some people think it is best to leave the disease to take its course, without the aid of treatment of any kind; but, as there are sometimes serious consequences that follow it, and often the effects of a disease are as injurious as the disease itself, I recommend the most skillful treatment.

Bots.

This is a subject that has puzzled the minds of a great many people, and there are a great many theories in reference to the origination of the bot. We know that all our scientific writers on the horse, claim that there is no such thing as the bot. They also add after giving the above opinion, that "you had better trust your horse to nature than to an ignorant bot doctor."

Some of these writers assert that the carbonic and oxygen gases of the stomach, through some cause, eat holes in the mucous membrane of the stomach, and this causes the death of the horse, that the people of different opinions, say died of bots. This view of the matter I think is improbable, though those gases may be taken up by absorption, and enter the circulation, and by poisoning the blood, death might be produced.

Again, others say that a gad-fly flies in the field where the horses are in pasture, and as it flies, it lights upon the horse's legs and lays eggs. The horse nips off these eggs, they pass through the mouth into the stomach, and in course of time, they hatch out into the bot. Now, it has been a question in my mind as to which one of these theories is correct. After

considering the matter from all its points I have come to the conclusion, that the bot is born in the horse in the same way as worms are in children. Of course I give this as my opinion, for I do not desire to condemn any other opinions on the subject.

Science has not yet decided what function bots perform in the system, but my presumption is that they assist digestion.

The bot is composed of nine hairy rings, and we have not a practitioner who can take his best scalpel cutting knife, and make an incision on one of them. They have no mouth, neither can they eat or drink, but they have the power of inhaling, and sustain life by inhalation. They hang by two little hooks in the tail, to the insensible coating of the stomach, and whenever the horse gets fermentation of the stomach, it causes them to bore into the mucous membrane, and this is frequently the cause of the horse's death.

Many persons are misled in making a diagnosis of this disease, by thinking that because the horse looks around on each side of him he has the bots; as that is called, in all the schools pointing, but that is an erroneous impression, and I consider it no guide in discovering the ailments of a horse.

SYMPTOMS.

The most dependable symptoms of bots are as follows: The horse is warm, extremities are warm, he switches his tail very frequently, and every third or fifth switch between his hind extremities. He stamps with his hind feet, lies down and rolls upon his back, gets up and stamps again as if he was trying to kick his abdomen, pulse quick and irregular.

CURE.

One pint of linseed oil with one ounce of chloroform. Give as a drench.

The linseed oil soothes all the inflamed parts, and the chloroform is as good a neutralizer as can be given. The stomach being perfectly tight the chloroform penetrates every part of it, and the bots inhale it and become so stupefied, that they let go their hold on the lining of the stomach, and fall down a dead mass.

The Colic.

As this is a somewhat condensed description of the horse and his diseases, I hardly think it necessary to explain each and every disease separately, by entering into a discussion of the several varieties of colic that most horse doctors claim to exist. They generally take up two or three pages in explaining spasmodic colic, which is an occasional pain in the stomach and intestines. They then consume an equal amount of space in explaining flatulent colic, which is caused by generation of gases in the stomach and intestines, and inflammation of the bowels which is sloughing of the mucous membrane of the intestines, and of the colon, which is the large intestine near the right flank.

One medicine reaches all of these diseases, and so it is unnecessary to make an elaborate explanation of them. But I will simply say, that the colic is brought on by hard driving immediately after being highly fed, and in many cases nature will throw off the disease without the assistance of any medicine whatever, and the less medicine you give your horse the better it will be for him, for all that medicine does is to assist nature and often nature will do the work alone. This is why so many simple medicines are recommended by the

people at large; they being ignorant of the diseases peculiar to a horse, recommend a remedy of no value whatever in itself, nature does the work, while the medicine gets all the credit.

The horse resembles the human family in some respects some are nervous, while others are not. Some horses being only a little ailing, will act as if they are at the point of death, and their pulse would not be increased more than from fifteen to twenty beats per minute. Another horse not having the same temperament as the above mentioned, will almost suffer death, and give no sign of sickness.

You must be governed entirely by the pulse of a horse in ascertaining whether he is in danger or not.

Having had fifteen years experience in the treatment of the horse and his diseases, close observation has taught me, that in colic the best symptoms to be guided by are as follows:

The pulse quick, ears cold, extremities cold, paws entirely with his fore feet, lies down, rolls, gets up and paws again, as before, more or less swollen.

CURE.

Laudanum	1½ oz.
Tincture Assafoetida	2 oz.
Sulphuric Ether	1 oz.
Essence of Peppermint	1 oz.
Warm Water	½ pt.

Given as a drench.

This is a recipe that I have used with wonderful success. If the animal is not better in fifteen minutes repeat the dose, half size. Keep the horse in a warm stall, clothe him well and keep him as quiet as possible. Another remedy that I have used with success when other medicines were not available is as follows.

CURE.

Bi Carbonate Soda.....2 oz.
Tincture Lobelia.....1 oz.
Warm Water.....½ pt.
Mix well together in the water, and give as a drench.

There is still another remedy that I have derived great benefit from, when no medicines were to be had. This is to elevate the hind parts of the animal, for instance, lead him to a hill-side, and let him stand with his hind parts as high as possible. This position throws the pressure off the diaphragm. I have had a very sick horse, and put him in the above described position, and let him remain so, for about ten to fifteen minutes, and then led him away entirely cured.

Fistula.

This is an affection of the serrates major, a tendon situated directly under the scalpula, and acts as a saddle for the scalpula, to keep it from creating a friction. One of the most terrible mishaps a horse can meet with is to be attacked by fistula. It is brought on in various ways, kicks or bruises of any description or from any cause whatever they may happen, will bring on fistula, and when allowed to run on any length of time, it is one of the most obstinate diseases to cure that horse flesh is heir to. But if taken in time, when the pus is first discovered to rise to the surface of the skin, it is more easily managed than at any other stage of the disease.

Almost every one in giving a remedy for fistula, recommends making an incision into the parts affected in order to get rid of the pus, but I have found that after an incision is made it becomes a running sore, and almost baffles the skill of the best veterinary surgeon in our land.

As it is almost impossible to cure the disease before the pus is gotten rid of, by taking a case in time, I have invariably met with success, and I prefer having the pus pass by absorption without making an incision,

but as it is a long and tedious process after running, and the horse being rendered useless during all this time, a man must be possessed of both patience and courage to treat this dreadful disease.

TREATMENT.

The treatment with which I have met the best success, consists in using very powerful medicines, and they must be used with the utmost care and caution. They are given immediately below:

Turpentine	1 pt.
Iodide of Mercury	1 oz.

Mix the above together and apply sparingly to the parts affected with a feather, being careful not to get any on the hands. The horse's blood should be kept in good condition by feeding and alteratives.

This remedy is to be used after the fistula has begun to run.

I have another remedy to be used before the fistula has begun to run. It is always the better plan to commence in time, before it has gone so far as to require opening, for then it is more easily driven away, and taken up by absorption in a shorter space of time. I use

Turpentine	1 pt.
Gum Camphor	½ oz.
Tincture Cantharides	1 oz.
Oil of Spike	1 oz.

Apply to the affected parts with a brush or swab, being careful not to get any of it on the hands. Apply every morning until three applications are made, then wash off, and grease with lard, continue to repeat the operation until a cure is effected.

POLE EVIL.

This is an affection of the surrates minor. I find the diagnosis the same as, and the treatment similar to fistula.

The Eye.

The eye is one of the most important organs connected with the horse. From the fact that when your horse goes blind he is almost worthless. It is one of the most delicate parts of the horse to be treated, and is in many cases seriously injured through the ignorance of the horse doctor by his blowing salt, pulverized alum and other substances that are more or less hurtful to the eye, for it being a mucous membrane is easily irritated, and instead of irritating, the object in treating the eye should be to allay all inflammation.

There are a number of people who are under the impression that a horse has what is termed blind teeth. In my opinion that is one of the most erroneous ideas that any person can be possessed of. When the eye of a horse begins to be affected, the people who are laboring under this mistaken belief, take their animal forthwith to a blacksmith, and have him knock out with his hammer these so-called blind teeth, and if this process has the desired effect, and causes the inflammation of the eye to subside, they of course believe that the teeth were the cause, and the knocking out was the cure, when in reality the benefit that is derived from the knocking out of the teeth is simply because it

makes a sore and that draws the inflammation from the eye to the gum, having the effect of a counter irritant.

There is no connection whatever between the teeth and the eye. The eye is a mucous membrane ruled by the optic nerve and that conveys the sense of sight to the brain. The anatomy and structure of the eye is the same in the horse as in the human family. The crystalline lens of the eye, the aqueous humor, the conjunctiva (delicate membrane that covers the front of the eye and the inside of the eyelids), and also the iris, a little curtain or network, extending from the interior of the first chamber of the eye to the cornea, is just the same in the horse as in the human family.

In treating common inflammation of the eye, I use the following remedy:

CURE.

Raw Linseed Oil	1 oz.
Sugar of Lead	4 gr.
Sulphate of Zinc	2 gr.

Apply to the eye with a feather, then bleed in the angular vein, that is the vein which is prominent on the face of the horse beneath the eye.

OPHTHALMIA.

Ophthalmia or what is more commonly called "moon eyes." I am not disposed to believe that any intelli-

gent man thinks the planet called the moon, has any influence over the eye of the horse. This disease is known to scientific practioners as specific or peridois ophthalmia. The cause of it is stoppage of the lachrymal duct, through nature's neglect to do her duty. The lachrymal duct is the canal that conveys the moisture of the eye to the nostril.

The first thing to be done in treating this disease is to open the lachrymal duct, that is done by the use of a small swab with a weak solution of tobacco, after which give the organ the same treatment as in common inflammation.

SCUMS AND FILMS OF THE EYE.

Are sometimes exceedingly difficult to remove, but they have been successfully treated by using the above remedies.

CATARACT.

Another affection of the eye is called cataract. It affects the bottom of the crystalline lens, and it is beyond the skill of science to remove a cataract from the eye of a horse.

Spavin.

This is an affection that is usually first observed on the hock-joint of the horse, and is most generally perceptible when the horse first shows signs of lameness.

There are two kinds of spavin, one kind comes on the top of the splint bone (which derives its name from the peculiar way in which it is fastened to the outer or shank bone) and is always cartilagenous.

The other variety of spavin is caused by a bruise, kick, or sprain which affects the periosteum, and the synovia fluid oozes out sometimes, and forms a kind of cartilage which grows and becomes ossified. There is nothing in the materia medica that will remove the ossification. All I claim to do is to take out the inflammation and cure the lameness, the enlargement must remain.

The most reliable symptoms of spavin are as follows: When you first commence to use your horse, if he is spavined, you will notice that he is very lame, after he is once warmed up to his work his lameness will diminish if not entirely disappear Then when you leave him to rest from his labor and he gets cooled off you will find that he goes lame again.

TREATMENT.

Turpentine	½ pt.
Oil of Origanum	1 oz.
Gum Camphor	½ oz.
Pulverized Cantharides	1 dr.
Gum Euphorbia	½ oz.
Tincture Iodine	½ oz.

Apply to the parts affected for three successive mornings, then grease with lard for three mornings, after which wash off the lard, and apply the preparation in the same manner until a cure is effected.

RING-BONE

Is treated in the same manner as spavin.

Heaves.

This is a disease that almost unfits a horse for any kind of service, and it is considered incurable as it is supposed to be an affection of the lungs; but, if a man takes a common-sense view of the matter, he will see at once, that if a horse's lungs were so affected it would be impossible to lead him eight or ten miles, much less work him, and make him draw heavy loads as many do.

This fact proves to my mind that the disease is located in an entirely different organ. There is in the horse's throat a valve that is called the glottis. From some accident this valve gets irritated, and often it becomes so much lacerated that it becomes a running sore. After having discovered the seat of the disease, we must then seek to remedy it. I have used the following remedy for heaves with much success:

Balsam Copaiba.....1 oz.
" of Peru .....¼ oz.

Then add a sufficient quantity of prepared chalk to make ten pills; give one of these pills every morning.

String-Halt.

String-halt is a disease of the horse that considerably depreciates him in value, and is also very detrimental to his movements. It is considered incurable as scientific writers assert that it is an affection of the nerve that extends downward in the horse's hind extremities. Now, reasoning from a common-sense point of view, if a man were to have an affection of the biceps muscle, the hand would have a tendency to draw towards the shoulder, and so we find on the hind-quarters of the horse a muscle that is termed the superior or major muscle, also the muscular biceps, so when these muscles are contracted they cause the horse to make an awkward spasmodic movement, just as the arm of a man does when the biceps muscle is similarly affected.

In treating this ailment, we must relax the muscles. The remedy I use for doing this is given as follows:

CURE.

Goose Grease ..... 4 oz.
Oil of Cajiput ..... 1 oz.

Make a mixture and apply to the parts affected.

Allow me here to relate a remarkable instance of how a horse was cured of string-halt.

A reliable gentleman residing in Lebanon, Ohio,

asserts positively, that he thoroughly cured one of the worst cases of String-halt ever known, by simply saturating the muscles two or three times per day with common goose oil. The oil on account of its penetrating nature, affected the muscles in such a way as to relax them, and remove the disease.

Another case that fell under my notice was an incident related by a very reliable resident of Wabash, Indiana, in this case the String-halt was cured by the application of sweet oil.

Splint.

This is a very common disease, and is known to all horsemen, who consider it a harmless malady, as the general opinion is that it entirely disappears without any treatment whatever between the ages of seven and nine; yet I have seen horses that were made of little account, comparatively, because of splint.

The cause of this ossification growing on the corporal bone of the horse has never been satisfactorily explained to me. My own idea of it is, that it is caused by the animal having received some unusual bruise from the kicks of another horse, or from a blow that has been given him, and it may arise from a bruise he has given himself while in the stall or pasture. For that without a doubt would injure the periosteum, the fibrous membrane that covers the bones, and in my opinion conveys the nutrition to the bones.

A bruise will affect the periosteum in such a manner as to cause an enlargement to grow under the surface of the skin. Sometimes splint grows on the parts of the leg where it interferes with the tendon and it may sometimes be found immediately on the joint, and when it is on or over a joint it becomes necessary to place the horse under treatment to relieve it of lameness.

The best application to be made for splint is given below.

CURE.

Tincture Iodine	1 oz.
" Cantharides	1 oz.
Gum Camphor	¼ oz.
Oil of Origanum	½ oz.

Apply to the parts diseased for three mornings in succession, then grease with lard in the same manner, after which apply again until a cure is effected.

Acute Founder.

In my opinion, there is no such thing as chest or water founder, and I think if any man will take a common-sense view of the matter (as the horse is comparative anatomy to the human family), he will find it is impossible for either man or beast to eat or drink so much as to make him lame. As founder invariably ruins the feet, I have found, by close observation, that the seat of the disease lies entirely in the feet.

There are many horses in the country that are suffering from a disease known as hoof rot, and when a horse is foundered it is caused by over-eating and drinking when his feet are so diseased. The over-eating and drinking produces an inflammation which settles in the feet, and that is founder.

I always treat the fore-feet for founder and meet with success. By placing your horse's feet in water that is as hot as he can bear, and letting them remain for six hours, being careful to keep up the temperature of the water, even increasing it as he becomes accustomed to the heat, you will find him greatly improved at the end of the above specified time.

After this, I use the Hoof Ointment, heating it into

the bottom of the hoof with a hot iron, and immediatel y afterwards give the horse a physic.

CHRONIC FOUNDER.

This is an exceedingly difficult matter to remedy, for in many cases you will find that the hoof of the horse has grown entirely out of shape. The best treatment I have ever found is to take the horse to the blacksmith's shop, and have his feet trimmed down as low as possible, then use the Hoof Ointment on the bottom of the foot. When the shoe is nailed on, be careful not to have it drawn too tight. In the meantime feed him alteratives.

Tetanus or Lockjaw.

This is one of the diseases of the horse that is most to be dreaded, as it is exceeding difficult to cure. Fortunately, it is of very rare occurrence in this country. It is caused by the injury of some nerve, and it is accompanied by the most excruciating pain.

If any nerve is torn or lacerated it soon conveys the derangement throughout the entire nervous system and causes the contraction of every muscle. The horse's jaws become so much tightened that he frequently dies from want of nutrition, to support life; so, in many cases it is necessary to use clysters of cornmeal gruel every four or eight hours. This will afford some sustenance.

The object in treating this disease is to relax the system, and this is the only means by which a cure can be effected. For doing this I have used the following combination:

Laudanum ..... 1 oz.
Tincture Assafoetida ..... 2 oz.
Sulphuric Ether ..... 1 oz.
Mix with half pint of warm water and give as a drench.

LOCKJAW.

I have used chloroform for relaxing the system with satisfactory results. I have used from one to three

ounces, by taking a sponge, and saturating it with the chloroform, and keeping it close to the animal's nose until he is under the influence of it. Then I take

Alcohol.....1 pt.
Capsicum.....1 oz.

Make a mixture, and rub his legs and also his spinal column.

Wind-Galls

Come, usually, near to the pastern joint, and in most cases they do but little harm, except being an eye-sore to admirers of horse flesh; they depreciate the horse in value.

Many claim to have a cure for wind-galls, but I have tried my utmost to remove these protuberances, and have failed to effect a positive cure. I have also spent large quantities of money in purchasing these pretended cures, and considerable time in experimenting with them, and all with no success.

Some assert that fish-worm oil will remove wind galls, but I have found that it is composed of the commonest of all oils, and there is no particular virtue in it. And I would advise all horse owners not to invest in these spurious remedies for wind galls, for it is simply a waste of money.

A wind-gall is a rupture of the little veins or sacks near the pastern joint. After these sacks or veins are broken, a yellowish water exudes, and this water incloses itself in little sacks, called wind-galls, deriving their names from a former supposition that these sacks contained wind. It is almost impossible to remove them by absorptions. I have given temporary relief,

but have found that when the horse is put to hard work the wind-galls return.

REMEDY.

Pulverized Cantharides	1 dr.
Tincture Iodine	1 oz.
Oil of Spike	¼ oz.
Sweet Oil	2 oz.

Apply for three consecutive days, and grease afterwards to prevent the hair from being disturbed, after which wash clean and apply again; this process, together with the use of a pad over the afflicted part, and a bandage used at night will so far remove the enlargement as to make it almost imperceptible.

Warts.

These are small tumors of various shapes and sizes, that grow on the surface of the horse's skin, and are generally caused by high feeding and limited exercise. Young horses are more liable to have warts on them than older ones. There are two kinds of warts—seed warts and blood warts.

Seed warts are small, and make their appearance on the nose and belly of the horse, growing in clusters and bunches. They have in them little grains, known by the name of "seeds." They are connected with the scarf-skin, and grow down towards the cellular membrane, from this they receive their growth, and each of these seeds has its origin in this membrane, which is called its root. The roots must be destroyed before warts can be removed.

BLOOD WARTS

Are of a more serious character than seed warts, as they are a growth of flesh from some membrane, and are filled with blood, which flows quite freely whenever they are much irritated. They are found on the hock and pastern joints more commonly than in any other place, and sometimes over the eye, but have no particular settled location, and will spread and enlarge and

when one makes its appearance there are many to follow. Sometimes they are found hanging by stems. These are more easily removed than the others, for a tight ligature can be placed around them, which severs them from the body. After they have been cut off, I touch the diseased parts with nitrate of silver.

CURE FOR WARTS.

Apply Nitrate of Silver.

GRAPE LEGS.

This disease is commonly known to farmers and others as big, or milk leg, and is brought about by some bruise, kick, or cut, and also by the animal receiving a poisonous bite or sting. Any one of these causes will produce an enlargement, and the leg becomes so much swollen that the cuticle, or outer skin breaks.

I have never been able to discover a remedy to present to the public, and there is no remedy except an external application. Great benefit may be derived from using any good liniment that will act as a liquid bandage. This disease renders the animal almost useless and worthless, and as there can be no permanent cure, there is not much use to waste time and money on it.

Sweeny or Swinny.

This is a derangement of the muscles directly over the scapula or shoulder blade. It may be occasioned in different ways. For instance, if a horse gets his foot injured, he will most naturally hold it in such a position that it will be shielded from bearing any of his weight, and this disuse of the muscles will cause them to shrink or wither. Also, young horses when put to heavy drawing, that they are not accustomed to, will, by over exertion, sprain the ligaments and muscles of the shoulder, and this causes sweeny.

As there is no treatment except external applications, I use the following:

Oil of Spike	1 oz.
Oil of Amber	1 oz.
Turpentine	2 oz.
Linseed Oil	½ pt.

Make a mixture and apply to the parts affected for three days; grease for three days, then wash off and apply as before, until a cure is effected.

HIP-SWEENY.

As hip-sweeny is of rare occurrence, and as it is similar in its nature to the sweeny above described, and known by the lameness of the horse, and shrinking

of the hips, it must be treated in all cases like sweeny in the shoulder.

SIT-FASTS.

A sit-fast is a small lump that comes between the flesh and the outer skin, and is caused from saddle and collar galls. The easiest way to remove them is to use a sharp knife, as they don't yield readily to medicine.

I take the lump between my thumb and fingers, and make two incisions across the top of it, and with a slight pressure upon it, it will come out.

Worms.

There are many varieties of worms in the horse, and they are not detrimental to his physical condition unless there is too great an accumulation of them. First, we have the white worms, and they are from eight to ten inches long, and are most generally found in the intestines.

Then we find a darker colored and smaller worm, commonly called the "needle worm." This kind is usually found in the horse's intestines, and they sometimes descend into the rectum in large numbers. This gives rise to an irritation which causes the disease known as rubbing the tail.

When a horse is diseased with worms, he is poor in flesh, his hide is tight, the hair stands upright over his body, and sometimes these worms pass from him. A horse can never be put in good condition while he is afflicted with too great an accumulation of worms.

CURE.

Santonine	25 gr.
Linseed Oil	1 oz.
Tinct. Rhei	1 oz.

Mix and divide into three equal parts, and give in doses four hours apart. After which the horse should be given one pint of linseed oil.

ANOTHER RECIPE FOR WORMS.

Powdered Areca Nut—Give one teaspoonful morning and evening; two doses will be sufficient. After which the animal should be given a pint of oil to work off the medicine.

RUBBING THE TAIL.

As said before, the cause of this disease originates from worms. Many are mistaken in thinking it is a humor of the tail, when it is only the worms that irritate the rectum.

CURE.

Inject a Solution of Sulphuric Ether.

If this does not allay the irritation, it is simply an irritation of the anus, and it needs to be greased thoroughly with citrate ointment.

Stable Galls.

These come on the elbow, and are caused by the position in which the horse lies in resting, as he places his foot in such a way that it brings the pressure of the foot so that it rests upon the affected parts.

In order to effect a cure, it is necessary to commence treatment when the galls are first noticed, as you will find them quite obstinate to cure after they have been neglected for a length of time.

By using a strong liniment I disperse the watery substance that has accumulated, and as this application makes a sore that is tender to the touch, the animal will naturaly change his position so that his foot will not touch and irritate the tender part.

CURE.

Use the Spavin liniment, and sometimes it is necessary to put in a rowel.

Enlarged Hock

Is brought on by the animal being bruised or sprained, and if left too long, is very hard to remove, as it is of a callous nature. If taken when hurt, and bathed with warm water, there will be a great benefit derived; after which make a liniment of

Oil of Sassafras	1 oz.
Spirits of Camphor	1 oz.
Belladonna	½ oz.
Turpentine	½ oz.
Sweet Oil	4 oz.

And apply to the parts affected.

CORNS

affect the foot of the horse, and are usually found on the inside quarter. The principal cause of corns is bad shoeing, or leaving the shoe remain on the foot too long. They are exceedingly painful to the animal, causing him to favor the foot and go lame, and they give the owner considerable annoyance.

TREATMENT.

The shoe should be removed, and the part of the hoof that is situated over the corn should be pared down until the corn is reached, after which apply the hoof ointment.

Farcy.

This disease is to be found in horses that have been neglected in their keeping. It is considered by some to be contagious; as it is generally connected with glanders; but I have known a great many cases where glanders was not associated with it. I presume it to be an affection of the blood. It makes its appearance on the horse's neck, hips, belly and legs, and forms itself into little pustules, from which a yellowish water exudes. As a general thing, before these little pustules form, the animal suffers from loss of appetite and becomes somewhat debilitated.

The best and surest way of managing this disease is to keep the animal to himself as much as possible, and the treatment would have to be that of purifying the blood. The first thing to be done will be to give the horse a very strong physic; this may be done by dissolving one ounce of aloes in a pint of warm water, and putting this in a quart of linseed oil, and giving it as a drench. The horse should be turned out on grass if convenient, and if not, he should have from two to three bran mashes per week, for this will act as a relaxative, and is made by taking a third of a bucket of wheat bran, and adding one tablespoonful of

sulphur; then scald the bran with boiling water, taking care to cover tightly so the steam will not escape. Let it stand six hours then it will be ready for use. The horse should also be fed on condition powders. These directions followed closely will effect a cure.

Glanders.

This disease is pronounced incurable by every one; therefore I shall attempt no treatment. It is an affection of the membrane of the nostril, the same as catarrh in the human family, and is considered contagious; but this is an unsettled question in my mind, as I have known horses to work for months beside this disease, and to be fed out of the same trough from which horses diseased with glanders had eaten, and never have the disease.

As glanders affects the constitution more or less, the treatment will have to be constitutional. In many cases momentary relief may be given, by syringing the nostril with a solution of Tanin; at the same time giving the horse tonics; and as I consider the malady incurable I will give no remedy for the cure of it.

Surfeit

Is an affection of the skin. It is by no means a dangerous disease, as all horses are liable to become surfeited. It makes its appearance most generally when the horse is thin in flesh, and the hair and skin are exposed to the weather, when the blood is impure and there is an unhealthy condition of the entire system. It is occasioned by neglect and I have known horses to become surfeited, that have had the best of treatment.

This disease is first noticeable on the shoulders, hips and belly. Little pustules appear on the surface, and from these exudes a whitish-like matter; it escapes in small quantities and forms into little scabby excresences, and these become sore.

TREATMENT.

It is not necessary to place the horse under any special treatment, as a blood purifier of any description, will allay the inflammation. In very obstinate cases, the remedy for scratches may be used.

Gravel.

This disease is first discovered in the kidneys and bladder. The gravel-stones, or calculi, are more frequently found in the bladder, although in my opinion they exist there as secondary results. They first form in the kidneys and pass into the bladder while quite small; they continue to grow and enlarge until they are of a considerable size.

When these stones are somewhat large, they can be discovered by introducing the hand into the rectum and pressing the bladder, which is situated immediately underneath. In this way the calculi can be easily detected.

During the existence of this malady, the animal suffers the most acute pain. But fortunately this disease is of rare occurrence among horses. The symptoms are similar to those of stalling.

CURE.

Fluid Extract Buchu.....1 oz.
Tinct. Hydrangea.....1 oz.

Give a tablespoonful three times per day until the animal is relieved.

Inflammation of the Brain.

Is a disease that is of rare occurrence in the horse family. I have had several cases to come under my observation, and have had one or two that were in an almost hopeless condition. These horses I found were drooping their heads almost to the ground, and were in a staggering condition. The pulse was irregular. In such cases I find blood letting necessary.

I at once took a gallon and a half of blood, and administered a severe cathartic, composed of one ounce of Aloes dissolved in a pint of warm water, and to this I added one quart of Linseed Oil. This combination relaxed the system, and gave relief in twenty-four hours. The horse speedily recovered without any further treatment.

Blind Staggers.

I have been called upon to treat but few cases of this malady as it is rarely met with in the Northern States. But I have treated cases in which the symptoms were synonymous with those of blind staggers. I found the animal in a reeling, staggering condition, appearing to have no control over his actions.

METHOD OF TREATMENT.

I immediately opened the jugular vein and extracted about a gallon and a half of blood. Allow me to remark here that, in my general practice, I do not approve of blood letting, but in this case it seemed to be necessary to do so.

After bleeding the horse, I adminstered a strong cathartic, using one quart of linseed oil, and after dissolving one ounce of Aloes in a pint of warm water, I added it to the oil. In this way I relieved the animal in from twelve to twenty-four hours.

Curb.

This is a derangement of the sheath—that is, the inner wall of the skin, the skin being composed of three walls. Through some mishap, the inner wall becomes broken, and this allows the tendon to project so much that it produces an enlargement.

To remove this, anything can be used that will act as a liquid bandage; and curb can be cured if taken in time, letting the horse have perfect rest.

CURE.

Gum Camphor	2 oz.
Belladonna	¼ oz.
Turpentine	½ oz.
Pulverized Cantharides	1 dr.

Pulverize the Gum Camphor, mix with lard sufficient to make a paste; then add the remainder of the ingredients, and apply to parts affected for three days; grease for three times, then wash off and apply again, until a cure is effected.

In obstinate cases use same remedy as for spavin.

Lampas.

This disease is commonly met with in young horses, and is of no serious consequence, as it is only an inflammation of the bars of the roof of the mouth, which nature has placed there to assist the tongue in conveying the food back for the teeth to masticate.

This disease may be remedied very easily by taking a small sharp knife and scarifying the bars, being careful not to cut too deep, as an artery lies near to the surface, this will allay the inflammation.

Hidebound.

This is a disease caused by the closing of the pores of the skin. The hide adheres to the ribs, and the hair is deprived of its glossy color, and is no longer smooth as it is natural for it to be in health.

My opinion is that this is a disease of the skin, or of the entire system of the horse. To accomplish a cure it is necessary to renovate the system and purify the blood; this may be done by giving two ounces of Aloes dissolved in a pint of warm water, and mix with one pint of Sweet Oil.

Then feed the Condition Powders.

Suppression of Urine or Stalling.

This disease may be occasioned by stricture of the urethra, or by the inflammation of the neck of the bladder. But let it originate from whatever cause it may, it is necessarily exceedingly painful.

The symptoms are very similar to those of Inflammation of the Bowels, and Stone in the Bladder, and any one might be mistaken in distinguishing between them. The principal symptoms are seen in the general uneasiness of the animal, and the frequent repitition of the actions of an animal desiring to urinate.

TREATMENT.

Tincture Uva Ursi.....1 oz.
Extract Fluid Buchu.....1 oz.

Make a mixture and give a tablespoonful three times per day.

Thumps.

This is a disease with which all veterinarians are acquainted, although few of them know the real origin of it.

My idea of this malady is that it is situated in the pulmonary artery; the one that conveys the blood from the right ventricle to the lungs. Through some derangement, the walls of the artery become thickened and enlarged; this seriously obstructs the natural circulation of the blood. When the horse has been overworked and overheated, the heart is made to beat faster, and the blood is so much excited that it passes through this channel or artery at a very much increased speed, this disorders the circulation, and gives to the disease known as thumps.

It is not prevalent in any particular class of horses, although I find that horses that have a full supply of blood suffer more frequently from it than those that are thin blooded.

There is no permanent cure for this disease, although the animal can be relieved to some extent, by placing five drops of Aconite on the tongue, and if the animal is not relieved by the first dose, repeat the dose at intervals of from thirty to sixty minutes until there is

a change for the better perceived. I have never known this to fail in from one to two doses.

BLOOD OR BOG-SPAVIN.

My opinion is that this disease is caused by the breaking of the little veins, this produces a lameness, and forms what veterinary surgeons call

THOROUGH PIN.

This is in most cases incurable, and as I think useless for a man to spend his time and money, without deriving any benefit. I therefore give no positive cure. The remedy advised in curing spavin, will remove lameness, but it will do nothing more.

Stifle.

A sprain of the ligaments that connect the femur with the tibia bone, is commonly termed stifle, and is brought on by some unusual exertion of the horse. It is considered a very serious variety of lameness, but if taken in time it is easily remedied. Some opinions on the subject of the stifle are that the tibia bone is thrown out of joint, but it would be impossible to do this, unless the ligaments were torn sufficiently to allow the bone to protrude, and this being done, in nine cases out of ten, tetanus or lock-jaw would ensue. Experience has taught me that it is nothing more than a severe sprain, and if taken in time it can be remedied by the use of the following:

One ounce of gum camphor, pulverized, and sufficient lard to make a thick paste; to this add one ounce of Aconite. Apply to the affected parts and heat in with a hot iron.

Repeat until three applications have been made.

Big Head

Is a disease rarely known in the Northern States, though it prevails to some extent in the South. Some claim that it originates entirely from the teeth; others claim that it is in the blood. My opinion is that it is in the blood, judging from the actions and appearance of the horse. When a horse has an attack of big-head, he becomes stiff apparently from a contraction of the muscles; he also becomes thin and poor in flesh; seems to droop, and is very sluggish in his movements.

In order to effect a cure it will be necessary to treat the blood; this can be done by giving strong purgatives, followed by feeding the Condition Powders. On the nasal bone there will be found an enlargement, which must be treated with the following medicine:

Linseed Oil	1 pt.
Oil of Spike	1 oz.
Turpentine	2 oz.
Pulverized Cantharides	1 dr.

Apply to the affected parts; heat in with a hot iron for three days; then grease for three, wash off, and apply as before.

Rheumatism

Is supposed to be common among horses, but I have met with very few cases during my fifteen years' practice. If you take the opinion of the inexperienced in the matter, almost every case of cramps would be rheumatism. If a horse is affected with rheumatism, his joints will necessarily be affected, and is accompanied by the most severe pain.

Rheumatism is caused by exposure and neglect, and it often affects the shoulders in such a manner as to render them useless.

TREATMENT OF RHEUMATISM.

The first treatment must be to relax the entire system; this is done by dissolving one ounce of Aloes in a pint of warm water, and mix this with a pint of linseed oil.

GIVE AS A DRENCH.

Bathe the affected parts in a mixture made as follows:

Goose Grease	4 oz.
Oil of Cajiput	1 oz.
Oil of Cedar	½ oz.
Chloroform	½ oz.
Spirits of Camphor	½ oz.

Cramps.

This is a disease of the horse that is caused by over exertion or by sprains of some kind. It is a contraction of the muscles of the leg; and is sometimes occasioned by the horse being stabled in a small, narrow stall, which compels him to stand in an uncomfortable position. This position has a tendency to contract the muscles and render them unpliable, and they refuse to act, because the blood has not been allowed to circulate freely. After the nerves are brought into action the animal seems unable to control the muscles, and they jerk and move in a very disagreeable manner.

Cramps are similar to rheumatism, and painful in the extreme, sometimes resulting in lameness. The affected muscle may be discovered, by close examination, and a pressure of the hand on the tender part, as the horse will flinch and shrink from the touch of the hand.

TREATMENT.

Sweet Oil	2 oz.
Gum Camphor	¼ oz.
Cajiput	¼ oz.
Belladonna	¼ oz.

Rub in well with the hands.

Weakness Across the Loins

Is sometimes termed inflammation of the kidneys; it is occasioned by some sprain, or by the derangement of the urinary organs.

SYMPTOMS.

The symptoms of this disease are as follows: when the pressure of the hand is put upon the horse's back, he will be seen to shrink and bend as if it gave him pain. He also when walking, has a dragging manner of gait, as if it required great exertion on his part to use his hind extremities.

TREATMENT.

This disease requires treatment in its earliest stages; as it always unfits a horse for use, and when of long standing it is difficult to manage. Make an application of the White Liniment directly over the loins. Then make a mixture of

Balsam Copaiba.....1 oz.
Fluid Extract Buchu.....1 oz.

Add one tablespoonful of water and give it three times per day.

Thick Wind.

This name is applied to an ailment of the horse, when he experiences a difficulty in breathing. I have known some horse to make a sort of gargling sound in their nostrils; others breathe as if they had a thickening of the membrane of the trachea, or an affection of the bronchial tubes. This thickening accompanies various diseases, such as distemper, lung fever, etc., etc. In some cases of lung fever, parts of the lungs thicken or become hepatized, and the cells are closed, this would naturally cause quick and hard breathing.

Some claim that tight reining is the cause of thick wind, but be that as it may, in my opinion tight reining is in itself cruelty to a horse, and deserves censure on all occasions.

CURE FOR THICK WIND.

Make an application of the quick cure on the glands of the throat.

Wounds.

As it is not an unusual thing for horses to become wounded, by being kicked or hurt in such a manner as to lacerate the skin and make it necessary to put in sutures, it will not be amiss to give the mode of procedure.

I first cleanse the wound perfectly, then I prepare a suture of about five threads of saddler's silk, well waxed, pass the sutures through the lips of the wound, draw them together and tie the thread tight. The sutures must be put in about two inches apart, as there must be space enough between them to allow of suppuration.

It is the best to have the wound to heal by the first intention; this may be done by applying the carbolic oil. This is a combination of

Sweet Oil	1 oz.
Carbolic Acid	20 gr.

An application of this kind sets up a healthy granulation, and is one of the best combinations known in the profession.

Coughs and Bad Colds.

The organs of respiration are oftentimes affected by a cough, which is caused by the inflammation and irritation of the throat, trachea and lungs; sometimes this cough is occasioned by the horse having taken cold, and as the throat and lungs become inflamed and tender, the inhalation of cold air will have a tendency to irritate them and produce a cough. This cough or cold should have immediate attention, for if it is neglected it may be productive of serious results.

There is in the throat and lungs, when in a perfect healthy condition, a vapor or moisture, when these organs become dry and inflamed, they are easily irritated, because the requisite moisture does not exist as it should, and the cold air passing through them, in this condition, causes a disagreeable sensation, and the animal coughs to relieve it; this coughing irritates the throat still more, and the longer it is neglected, the more troublesome it becomes. So it is better that the animal should receive prompt attention in order to prevent the ailment developing into an incurable disease.

TREATMENT.

My mode of treating a cough is as follows:

Dover Powders	5 gr.
Quinine	6 gr.
Ipecac	2 gr.

A mixture of the above ingredients should be placed on the animal's tongue, three times per day. If there is any contraction of the lungs, this will relax the air cells. Then take one pint of molasses, and add one ounce of chlorinated potash, and place one teaspoonful on the tongue three times per day.

Scratches

Are caused many times by neglect and bad management in leaving a horse stand over night with mud on his legs, and leaving him in a foul stable; this is also the cause of hoof rot. Scratches is not a constitutional disease but merely a malady pertaining to the cuticle.

Cleanliness is one of the most essential features in curing this or any other skin disease. By washing the legs of the animal with warm water, and using castile soap freely, rubbing them until quite dry; and then by making the following application you will remedy the disorder.

CURE.

Pulverized Brimstone.....1 oz.
Common Gun Powder.....½ oz.

Add lard sufficient to make a thick paste and apply freely.

Scours.

This disease is occasioned by a horse being fed a larger quantity of oats than he is in the habit of eating, and then driven immediately afterwards, or it may be brought on by exercising a horse too freely when his bowels are in a relaxed condition. Either of these causes will produce an irritation of the bowels and a derangement of the gastric juices of the stomach. It is often accompanied by the most severe pain, and sometimes becomes a very serious affair and even ends in death.

Many people have no idea of the cause and nature of this disease and are unable to prescribe for it. The object in treating this disease is to neutralize the gastric juices of the stomach and allay the pain, to do this, the remedy is as follows:

Tincture Rhubarb	½ oz.
Spirits Camphor	½ oz.
Tincture Opium	2 dr.
Chloroform	2 dr.

Give a tablespooful of this mixture three times a day. I have never known this to fail. The fourth dose in most cases effects a cure.

Giving Medicine, or How to Drench a Horse.

Giving medicine is one of the most difficult tasks that horsemen have in treating diseases, as they use the old method of pulling the horse's head up into an unnatural position, then introducing a long-necked bottle into his mouth, and pouring down some nostrum faster than the horse can swallow; this causes a portion of it to be forced into the trachea or wind-pipe, and brings on strangulation and a severe spell of coughing, and sometimes leaves serious consequences, as the coughing proves to be lasting and difficult to remove.

By a close application to the study of nature and the natural motions of a horse, I have found a far better way, by which a boy twelve years old may drench a horse more easily than three or four stout men can by the old fashioned way.

After having my medicine prepared in a half pint or pint flask, I stand on the right side of the horse, take him by the bridle with the left hand, then insert the neck of the bottle in his mouth, just back of the front teeth, letting it extend far enough in to reach the tongue.

Then pour the medicine from the bottle into the mouth, no faster than the horse can swallow it. By using this method you will find that a horse will take any kind of medicine without the slightest hesitation.

This will look very simple to any person who has never given medicine in this way; but after having tried it once the old method will be entirely discarded. This is the only common-sense way to give medicine to a horse.

Horse Powders.

As horse powders are something that is in general use, I have thought it necessary to give one. Knowing the value of a good powder, I have used my utmost exertion to make a combination that would be of benefit to the horse. The properties of this powder are both tonic and relaxative, and a trial of them will only prove their excellence. The ingredients are as follows:

Powdered Gentian	4 oz.
" Peruvian Bark	2 oz.
" Rhei	½ oz.
Sub-Carbonate Ferri	1 oz.
Yellow Root	1 oz.

Mix a teaspoonful with the horse's feed, morning and evening, for ten days.

In any case of anaemia, which always occurs after a severe attack of lung fever and quinsy, it will be found to be unequaled for bettering the horse's condition; and in any case where the object is to improve the condition of, and fatten a horse, they are unsurpassed.

CONDITION POWDERS.

Pulverized Stramonia Seed	1 oz.
Sulphur	½ lb.

Give a light teaspoonful every other day for two weeks. This will be found valuable, if given during an attack of farcy, surfeit, etc.

Liniment for Sore Backs and Shoulder Galls.

The object in treating these ailments is to take out the soreness and soften the parts affected. This is done by making a mixture of

Sweet Oil	2 oz.
Gum Camphor	¼ oz.

Cure for Sprains.

All sprains should have immediate attention and the utmost care, for often a sprain that is considered of no importance at the time it occurs, will develop into a serious affair, and will render a horse useless for weeks. But when judiciously treated in the commencement, is very easily cured.

It is very common for people to apply hot stimulating liniments. This should never be done until the inflammation is allayed. The best way is to bathe the horse's leg in warm water, and rub the leg well with castile soap, until it is well soaped. This bathing should be continued for about an hour, and followed up until the inflammation subsides, and after each bathing apply the following liniment:

Turpentine	½ oz.
Spirits Camphor	1 oz.
Chloroform	1 oz.
Oil of Cedar	½ oz.
Aconite	¾ oz.
Sweet Oil	2 oz.

This treatment, with close attention, will cure a sprain almost immediately.

Quick Cure.

Spirits Camphor	1 oz.
Chloroform	1 oz.
Oil of Cedar	½ oz.
Oil of Sassafras	1 oz.
Oil of Oraganum	½ oz.
Oil of Cloves	¼ oz.
Turpentine	½ oz.
Aqua Ammonia	¼ oz.
Sulphuric Ether	1 oz.
Oil of Cajiput	½ oz.
Sweet Oil	4 oz.
Belladonna	¼ oz.

This liniment will be found to be one of the most efficient of all liniments for bruises, and it is as excellent when used in the human family for aches and pains, as in the horse when used for bruises.

Black Liniment.

Turpentine	½ pt.
Fish Oil	½ pt.
Oil of Spike	1 oz.
Oil of Vitriol	1 oz.

Mix the first three ingredients, then add the oil of vitriol slowly and with caution. This liniment is a good remedy when used on any old chronic running sores, such as fistula, etc.

WHITE LINIMENT.

Alcohol	1 pt.
Turpentine	1 pt.
Corrosive Sublimate	1 oz.
Spirits of Ammonia	1 oz.
Oil of Oraganum	1 oz.
Tincture of Cantharides	1 oz.

Mix the Corrosive Sublimate and Alcohol in a mortar, and then add the others.

This liniment is used in all swellings, such as distemper and quinsy, etc.

Salve for Fresh Cuts and Wounds.

Take a gallon of jimpson leaves and pods, add one gallon of water, boil these down to one pint. Strain the liquid off and add

Rosin.....1 oz.
Honey.....1 oz.

And mutton tallow sufficient to make it into a thick paste; then simmer over a slow fire—being careful not to burn it—until it is thoroughly mixed. This makes one of the best salves that can be made either for man or beast; and where once used, is always used again.

RECIPE FOR CUTS AND WOUNDS OF ANY DESCRIPTION.

I derive more benefit from the use of the carbolized oil than from any other medicine I have used for wounds in horseflesh. This is made by taking

Sweet Oil .....2 oz.
Carbolic Acid.....20 gr.

These two ingredients, added together, act as a disinfectant; at the same time cause the wound to heal more quickly than any other application.

Liniment for Stiff Joints and Shoulders.

Oil of Spikenard	1 oz.
" Oraganum	1 oz.
" Tar	1 oz.
Pulverized Salt Petre	1 oz.
Oil of Turpentine	1 oz.
Alcohol	2 pts.

HOOF OINTMENT.

Turpentine	4 oz.
Sweet Oil	4 oz.
Gum Camphor	$\frac{1}{4}$ oz.
Oil of Spike	1 oz.
Corrosive Sublimate	$\frac{1}{4}$ oz.

Apply to the hoof with a sponge.

Coffin-Bone.

This is the first bone of the fore-foot, and lies entirely enclosed in the outer wall of the hoof, to which it is fitted. It is a spongy substance, and porous enough to allow the blood to circulate through it freely into the foot, which would be impossible if it were otherwise constructed. It also serves as a protection for the blood vessels, and prevents the blood from becoming obstructed in its passage through the foot.

It is very peculiar in its construction, and is hollowed out to fit the inside sole of the foot. There are small fibres that project from the coffin-bone, whenever these fibres receive an injury, the synovia fluid settles down into a bony enlargement; this will gradually increase, and will first be perceived at the edge of the hoof. It sometimes extends around the hoof, then it is called ring-bone.

The coffin-bone is often used as a cloak by the inexperienced horse doctor, for when a horse is suffering from lameness, and the doctor not knowing where to locate the disease, will almost invariably decide that the coffin-bone is diseased; when it is a very difficult matter for an old experienced veterinarian to ascertain to a certainty, whether the coffin-bone is affected or not.

Hoof-Rot.

This is a disease quite prevalent throughout the country, and many horses are affected with it without the knowledge of the owners. It is engendered by bad stable management and neglect; this also is the cause of many other derangements to which horses are subject. The disease may be known by the white, chalky substance that forms in the bottom of the foot. Many horse owners do not make a practice of examining their horse's feet, and often this disease gains considerable headway before it is discovered. When it is ascertained that a horse has hoof-rot he should receive immediate attention, as it often engenders other diseases. It may be remedied by paring the foot out as much as possible, and then applying the Hoof Ointment once a day until the foot is cured.

Thrush.

This is a disease of the frog, and may be known by the offensive matter that comes from the frog, or heel. Unless the owner of the animal is a close observer of his horse's feet this disease may become considerably aggravated before he is made aware of it.

It is engendered in most cases by the horse standing in a damp and neglected stable; or, through some injury done in the frog. A horse that has proper attention in every respect will never have the thrush.

CURE.

Oil of Oraganum	½ oz.
Turpentine	1 oz.
Honey	¼ oz.
Gum Camphor	¼ oz.
Sweet Oil	4 oz.

Apply to the bottom of the foot every night.

Cracked Hoofs

are occasioned by some old chronic disease that has caused the hoof to dry, and become so hard that it cracks. It is sometimes caused by the decay of the sole of the foot. The fore feet are more liable to crack than the hind ones. Sometimes founder, and narrow heel will produce a dryness and contraction that causes the hoof to split. These cracks, or splits, have no precise depth or length; I have seen them cracked so that they extended from the rim of the foot to the hair.

It takes considerable time to cure cracked hoofs; and if the hoof is suffering from any other disease it must be gotten rid of before an attempt is made to cure the crack in the hoof. The hoof should be pressed together and clinched by a wrought nail. The animal should not be put to heavy draught labor while the hoof is in such a condition.

It is essential to get the hoof in as good condition as possible, as it is necessary to grow a new hoof entirely, This may be done by applying the Hoof ment.

To Designate Between Shoulder and Foot Lameness.

Some people are at a loss to know how to distinguish between shoulder and foot lameness; and as I think it a matter of consequence I will give a few hints on the subject. A horse will often in arising from lying down, slip his fore extremity forward so much as to rupture the striffen, and this will cause a small quantity of blood to break from the veins and coagulate under the skin, and if it remains there it will produce a lameness.

The way to locate this lameness is to take the animal by the bridle-bits, and back him; if the lameness is in the shoulder, he will drag his foot as he backs; but if it is in the foot, he will lift it up from the ground as he moves. When it is discovered that the lameness is in the shoulder, to remedy it, it will be necessary to insert a rowel, at once for the purpose of drawing the inflammation to the surface. Then use the White Liniment on the point of the shoulder.

Another way to locate lameness, is by the motions of the horse when in a brisk trot, when he is lame below the knee, he will bow his head downward, and when lame above the knee he nods his head upward.

This is a sure guide to go by.

Horse-Shoeing.

This is one of the most essential and important operations connected with horse keeping; as a horse that is badly shod is never able to do any amount of labor; and an admirer of the horse never enjoys a ride behind an animal that cannot go without appearing to be suffering pain, and has a crippling sort of gait.

All horse owners know that many horses are ruined by improper shoeing. I have no intention of condemning all blacksmiths, for our towns and villages are blessed with many excellent ones, and blacksmiths are often blamed for bad shoeing when it is really the fault of the farmer in letting the shoe remain on the horse's foot too long. For as a general thing, you will find the farmers want the smith to put on a shoe so it will stay on a year, and this is more injurious than to have no shoe on at all. As a horse's hoof, when in a healthy condition, grows nearly half an inch in a month, his shoes should not remain on longer than from sixty to ninety days.

I have never met an intelligent smith who was not anxious to learn all he could in reference to shoeing, and whenever I meet an illiterate shoer, he always pretends to understand all about the anatomy of the horse's foot, but if you ask him any question as to the construction of it, he is not able to answer one. This is the kind of smiths that ruin many horses feet throughout the land.

When the horse is taken to the shop to be shod, it is necessary to have his foot trimmed perfectly level. If the toe is trimmed down, the heel should be trimmed in the same manner, as it is essential that the foot should be level. The frog should never be touched, as it sheds every three months; it acts as a sort of sponge for the foot, and it ought to touch the ground whenever the horse steps, in order to gather the moisture that the foot may require to keep it in a healthy condition.

After the foot has been trimmed, the shoe should be fitted to the foot, and not the foot to the shoe. The shoe should be made circular, so as to fit around the rim of the horse's foot, coming up close to the frog, in order to protect the heel. A great many people approve of a shoe that is wide at the heel, but this is entirely wrong, as it gives no protection whatever to the heel.

Place the nail holes as near to the toe as possible. There should be three nails on the inner and four on the outer wall of the foot, as the inner is weaker and shorter than the outer wall. There should never be a cork or toe on a shoe, unless it is in the case of a heavy draught horse, then it becomes a matter of necessity.

A horse should never have a cork without a toe on his shoe, as that would prevent the foot from being level.

The nails should never be twisted off with a clinching hammer, as great many smiths do, for in twisting they are apt to twist the nail in the foot and cause a rupture of the walls of the foot. The nails should be

turned up, and after the nails are drawn, they should be cut off with the pinchers, being careful to rasp as little enamel as possible off of the front of the foot, because the foot cannot be in a healthy condition until nature goes to work and makes the enamel on the front of the hoof again.

Shoeing a Horse That Interferes.

The shoe should be rounded off all the way around the inner wall of the hoof, so that when the horse raises his foot there will be nothing to cut. Great care should be taken to file the clinchers off perfectly smooth.

TO BREAK A HORSE THAT INTERFERES.

The best way to break a horse of interfering, is to buckle a round leather roll, stuffed with cotton, between the pastern joint and the hoof; buckle it so the ends of the roll will come close together. This roll strikes the opposite foot, and will cause the horse to place his foot in a different position when he steps. A few miles of driving will generally break up the habit of interfering.

TO BREAK A HORSE OF FORGING.

This is one of the most difficult habits to break a horse of, that we have to contend with. We have derived great benefit by making the shoe thin at the heel, almost as thin as a knife blade, and then putting a piece of steel on the toe of the shoe; this raises the foot and causes it to go over the fore foot instead of striking it.

Remedy for Narrow Heel.

The foot should be pared down on the bottom as much as possible, and the heels trimmed down low; then there should be a circular shoe put on, and the nails must not be drawn too tight.

The Hoof Ointment should be applied to the bottom of the hoof, every morning. The horse should be shod every fifteen or twenty days until a cure is affected.

THE HOOF-BOUND HORSE.

The hoof-bound horse may be known by the manner of standing; as he is always shifting his weight from one foot to the other, and seems uneasy and restless as if in pain.

CURE.

Grooves should be made in the outer wall of the foot, an inch apart, all the way around the hoof. Then a shoe should be made to circle, so as to protect the heel; and should be beveled from the last nail hole back on the inside instead of on the outer side. This is done in order to spread the foot.

Then the Hoof Ointment should be applied every morning in the bottom of the hoof.

The horse's feet should be soaked in warm water at least three times per week.

Flat Foot.

It has puzzled the best of horse-shoers to find a remedy for flat foot. An ordinary horse-shoe will not answer the purpose, as whenever there is too much pressure upon the heel the horse will limp. The only remedy for this is to throw the weight off of the heel. In order to do this, the shoe should be sprung from the last nail hole backwards, so that it will have a tendency to curve downwards; this will cause the shoe to spring every time the horse steps, and lessen the weight on the heel. By this manner of shoeing you will find one of these horses will walk with much more ease; and after a smith has given this one trial, he will adopt it ever after.

A NAIL IN A HORSE'S FOOT.

This is considered to be of little consequence by some but it frequently happens that a horse steps upon a nail, and it enters the foot and proves to be a matter of great importance, for the rust off a nail will often poison the flesh, and sometimes a nail is forced into the foot so as to rupture a nerve; this is apt to produce a sympathetic affection of the entire nervous

system and cause lockjaw; so it is better to give a matter of this kind prompt attention.

If after the nail has entered the foot, inflammation sets in, it must be immediately attended to. The inflammation may be allayed by using a poultice made of ground flax seed; this must be applied to the foot every night, at same time use the Hoof Ointment on the bottom of the foot, and great benefit may be derived from soaking the horse's foot in warm water every day.

Training A Trotting Horse.

As many persons are desirous of knowing some thing about the art of training a horse to trot, and as many horses may be made infinitely more valuable by being trained, I will endeavor to give a few ideas on the subject. Not having made the business a specialty, and, therefore, not being versed on the subject, I have referred to Mr. John S. Lackey, who is known to be one of the best horse trainers in the West, and am indebted to him for his mode of training. It is given below:

"It will be found that a considerable amount of labor will be required in the business of training, as it is necessary to put the animal in good condition for the business he is expected to follow. The first thing to be done in commencing to train, is to give the horse a walk of from three to four miles, every morning and evening. This is necessary in order to harden the muscles, so that he will be the better prepared for entering the track, as gradual training is always the best.

"It is necessary also to feed the horse a bran mash at least every other day, to keep the bowels open and better his general condition.

"After this has been kept up for two weeks, you may begin to exercise him a little more briskly by

trotting him moderately. This part of the training is known to horsemen by the name of "jogging." The horse should be taken to the track and "jogged" from three to four miles a day; this should be continued for at least two weeks, then the horse will be in a condition so you can speed him—that is, to put him to his utmost speed. A horse should always be jogged from one to two miles before speeding him; then he may be put to his utmost speed. It is necessary in speeding a horse to give him a full mile, as you wish to convey to his mind the idea that when he is put to his utmost speed he is required to go a mile.

"I have noticed that horses, when put on a half or quarter of a mile track, will go the first half or quarter mile in less time than they will the second, and by so doing lose time; so it is better to give them to understand that they must go a mile without stopping.

"After a horse has been thus exercised on the track, he should be taken to the stable, and his mouth should be sponged with clean, fresh water; the sweat should be well rubbed off, and a blanket thrown over him, and he should be given a short walk, after which return him to the stable and rub him entirely dry. By this time he may be curried and cleaned, after which bandages should be placed on his legs. This is done in order to give tone to the blood-vessels and assist circulation. The bandages should be of linen, and applied to the horse damp, being careful that they are well wrung

out, so there will be no water to drip from them. They should remain on two hours, after which remove them, dampen the horse's legs and rub them until they are quite dry.

"The horse should be fed principally upon oats, which should be thoroughly dusted. He should have from three to four quarts three times per day. He should also have from four to six pounds of nice, clean timothy hay, morning and evening. If driven in the morning he should have a short walk in the evening, and he must be comfortably clothed, according to the state of the weather.

"The horse, after speeding, must always have his legs well 'soaked out,' in order to allay any fever that may arise. Care must be taken to rub the legs perfectly dry.

"Some horses in training fall into the habit of 'hitching' or 'hopping.' This is caused by pressing them too closely, and giving them too much work, and they are made to feel a dislike and disgust for the track. This fault can sometimes be remedied by changing the horse from the track to the road. When this will not break up the habit, I use 'balls.' I put two strands of balls on the leg opposite to the one on which he hops. I buckle one row just above the pastern joint, and one just below it.

"I have also used what is called by horsemen 'cross-balls,' that is, using the balls in the same man-

ner on the opposite fore-leg. These remedies rarely ever fail to break up the habit of 'hopping.'

"Other horses fall into the habit of 'driving on one rein.' This is caused by the horse's mouth becoming sore, and in order to relieve the pain, he carries his head on one side. The first thing to be done is to remove the cause. This is done in many cases by what is known as 'floating the horse.'

"I sometimes buckle a strap to the side of the bridle-bit, bring it under the horse's chin, then fasten it to the other side of the bit, making it tight enough to prevent the slipping of the bit in the horse's mouth. This I have found to break a horse in a short space of time.

"Persons that train trotting horses should exercise a great deal of patience, and should be careful not to overwork the horse; for too much training makes him irritable and liable to 'break.' When he does break he should never be jerked down suddenly, as this will have a tendency to lessen his speed, but he should be given a full rein until he makes two or three jumps, and then be brought back by a steady pull; by these means it will be found that the horse will soon learn to lose nothing in breaking.

"Many horses are apt to strike and cut themselves; some will cut on the pastern joint, and others on the knee (known to horse trainers as 'swift cut'). This may be prevented by wearing a 'boot' on or over the

place where the horse is apt to cut. But I have derived more benefit from wearing a roll between the pastern joint and the hoof; a round leather roll, two inches thick, just leaving room enough for a buckle on one end and a strap on the other; place this on the foot that he cuts on; this has a tendency to make him throw his foot in a different position.

"It is oftentimes found necessary, while trotting a horse to give him stimulants, and as all horses are not constitutionally alike, as a matter of course the stimulants given them will need to be different. Some require whisky to be given them, and some trainers use a corn-meal gruel between heats.

"The proper amount of whisky to be given a horse would be four ounces, with four ounces of water added. This stimulant may be easily given without taking the horse off the track, by using Professor Patton's method of drenching a horse.

"Another mode of softening the horse's feet is to apply a poultice made of flax-seed meal to the bottom of the foot. This should be done occasionally, as it draws all fever to the surface, and keeps the feet in a healthy condition, and prevents them from becoming hard and brittle.

"In training a horse to trot, it is the better plan to use him in a light sulky, of sixty to seventy pounds' weight, being careful to have every part of his harness made to fit him comfortably."

Horse-Training.

The great secret of horsemanship is kindness toward your horse; but still, you must have a way of handling him at your will. In order to gain entire command over him, we have invented what is ordinarily termed, "The ten cent bridle." Take a common cotton cord, made of fine yarn, so that it may be quite strong, about three-eighths of an inch thick. If you cannot obtain a cotton one, a hempen one will answer the purpose, if it is strong enough. Let it be about twelve feet in length; fasten each end with a knot, to prevent it from raveling; make it, and place it around the horse's neck, in the same manner as you would a common rope halter; then pass your left hand down between the horse's neck and the rope, toward the horse's breast, grasp the rope in your left hand and draw it toward the horse's head; that forms a loop, then place that loop in the horse's mouth, and drawing it tight, and standing off to the left of the horse, you speak to him in a loud and distinct voice, saying: "Come here, sir;" at the same time throwing your entire weight upon the rope. That will draw the animal toward you with a sudden jerk. After repeating this operation three or four times, you will find no trouble in handling your horse at your will; for, using a cord after the above directions on a horse, will make him entirely submissive.

This cord also makes one of the finest bidding machines known in use. It does away with the old fashioned surcingle, gag-ring, martingale, and crupper. Putting this cord in the horse's mouth, and by standing in front of him, and jerking him, and at the same time speaking gently the words: "come up sir," will have the effect of putting him in a more natural position than any other mode of bidding you can invent.

HOW TO BREAK HORSES OF KICKING.

A kicking horse is one of the most vicious and dangerous animals of the horse kind. The cause of horses being vicious kickers is the fear of having their legs handled, and when you once get them accustomed to being handled about the legs you will have no more trouble in breaking them of the habit of kicking.

One way to break a kicker is to take him with the naked halter. Take his tail, part it in the middle, and tie a knot in it, and pass the halter strap through the loop made in the tail by the knot, and make it fast so the horse can not go in anyway except in a circle. Then take a pole and work it up and down his legs while he is circling in the ring. The object is to get him used to having his legs handled. Work him for about ten minutes in that position, and then cut a bush about the size of a common currant bush, tie this to his tail, so that it will drag on the ground, then whirl him for about 15 minutes more, then put the harness

on him, if he works all right, well and good; if he does not, go through the operation again.

Another way of breaking a kicker is with a small cord about twenty feet long, and about three-eights of an inch thick. Pass it over the horse's neck, putting the center of the cord on the horse's withers, and crossing the cord in the horse's mouth, then bring it back to the hind legs, making it fast by buckling a leather strap around the legs, between the pastern, and the coronal joint. Then fasten your line in the cord that is on the horse's neck, stand off and start him, when he makes an attempt to kick, the cord draws, and hurts his mouth, and as a horse can think of but one thing at a time, thinks of his mouth and forgets to kick. This plan is almost sure to break him, as I never knew a horse to kick more than three to five times with this training.

HOW TO MANAGE BALKY HORSES.

If you should happen to meet with a balking horse, you will find that he is one of the most worthless of the horse kind, from the fact, that the time when he is most needed he is the least to be depended upon. The cause of horses being balkers is owing to their being mismanaged, and it will be found most generally, where horses balk, that the driver is a person who does not understand how to control a team. For instance, the old gentleman farmer will say to his son John: "You take old Tom, and the young mare and go and take a load of wood to town." The boy goes down to the woods and unthinkingly puts on a load of wood large enough for two good pulling horses. The young mare being

tender in the shoulders, and becoming wearied with toil she is not accustomed to, comes to a place where there is to be unusually hard pulling, and she is sure to stop. The young man gets out of the wagon, pats her on the neck, and speaks to her, and encourages her while she stops, and so he spends his time until finally the old substantial horse pulls the load out; and when he gets the load out and up on level ground, he will draw the young mare up and commence to whip her. Now, you see he is whipping her for pulling, and petting her for balking. Now, having formed the habit, you must invent a cure for it, and get them broken of it, for, until they are completely broken they are in a manner worthless.

One of the best plans we know of, is to put the balker on the off side, then take a small cord, twenty feet in length, make one end of this cord fast to the right harness ring of the balking horse, then take the cord back and place it under the horses tail, make the other end of this cord fast to the harness ring of the near horse, get into the wagon, and as you touch the near horse with the whip, you must speak in a firm and distinct tone of words: "Get up," and as the near horse moves up, he throws the balker forward, as he gets ready to start, speak the word "whoa." Then starting him up in the same manner a second time, you will find when you say "get up," the second time, you will have no difficulty in starting him, as he will be perfectly willing to go, and pull his share of the load.

It is a great mistake as a general thing, to whip a horse for balking; for it serves to exite him, and confuse him, and render him all the more unmanageable. A good manager of horses must have control over

himself and not work himself up into a passion, for then he is sure to do something that will cause his horse to be more nervous, and after having beaten a horse once for not pulling, he will not be likely to forget it; so the next time he gets in a "tight place," he will be nervous and confused just from remembering the whipping he got before; so that it is a better plan to use firmness and kindness towards a horse at all times and not severity.

There still another reliable way in which to start a balking horse. If he should stop with you in a buggy, and refuse to go furthur—it is as follows: Take a newspaper, tear it in pieces, and fill the horses ears with it. This plan hardly ever fails to start him, as it produces an odd sensation to the horse, and he forgets that he is stopping, and starts off before he thinks what he is doing. He shakes his head and goes with no more trouble.

CURING THE HALTER-BREAKER OR PULL-BACK.

This is a very disagreeable and annoying habit which some horses have, of which it is sometimes exceedingly difficult to break them.

One of the best ways known at the present time, and one that will be of interest and benefit to those who read this book, we give as follows: First, buckle a strap around the left foreleg of the animal just above the knee, then take the halter strap, pass it through the hole in the manger, and make it fast to the strap which is around the fore-leg. As the horse pulls back to break the halter, it pulls his fore-leg forward, and no horse will enjoy breaking his halter at the expense of his leg, after the trial of a few times, the habit will be broken up entirely.

THE BREACHY OR ROGUISH HORSE.

The next subject we will take up and discuss, is the one in which we treat a breachy horse. I turn them from the stable into the pasture, with the head-stall and halter: First, taking a piece of leather about six inches wide and ten inches long, and fastening it to the top of the halter, so that falls down over the horse's eyes. I then cut five slits in the leather over each of his eyes, when the horse comes up to a fence and attempts to jump, the fence seems to come up to him. And it would be almost impossible to make him jump a fence, with that kind of a blind over his eyes.

HOW TO CATCH A HORSE IN PASTURE.

You must first break your horse to do anything you want him to do to be obedient in all respects. By patience and perserverence you can correct almost all the faults in a horse, and make him perfectly trustworthy, and, in fact make him just what a noble horse ought to be.

The reason your horses are unruly and bad to catch when in pasture is because your boy or servant when he takes your horse to the pasture, pulls off the bridle and hits them just to see them run away, and by so doing he gives the animal cause to think that every time you come to the pasture you have come to hit them, and so they seem to think it is to their advantage to keep away from you.

The most successful method of treating horses for this fault, and bad habit, is to turn the horse in a small inclosure, the smallest lot you have is the best, so that when he runs from you he is bound to circle around this small inclosure; walk slowly around in the center until the horse stops, and if he stops, you

may go up to him, caress him and pat him on the neck and speak kindly to him, saying, "you are a fine horse," always speaking kindly to him. Then try again in the same manner, until he will come up to you with out any hesitation. Then go away and leave him for a while. After a short time repeat the same operation again, and by giving him a few lessons in this way, you can entirely correct the habit. And the horse will soon learn to know that you have no intention of striking him, and will learn that you are not to be feared. By so doing, and by not allowing any one to strike him, he will soon learn to come when he sees you, and you will experience no more trouble about catching him but on the other hand, he will learn to follow you like a dog, and you can catch him at any time.

THE CRIBBER, OR STUMP SUCKER.

Cribbing, or stump-sucking, is considered by some people to be a disease, but we think it nothing more or less than a bad habit, although a very difficult one to cure or break, but with time and attention to the matter, it can be effectually remedied.

The horse first forms the habit by the compression of the upper nippers, and pressing down on the trough in order to get air through his teeth. By so doing he forms a habit, which to say the least of, is lasting, and is very hard to break. I derive a great benefit from filing; I take a small file, and file the upper nippers apart so the air will constantly pass through his teeth, and by so doing the habit is generally remedied.

The Loller, or the horse that protrudes his tongue; this is nothing but a habit in a horse, and is usually

observed in old horses, and it is considered a difficult thing to teach an old horse new tricks; so it is equally a difficult task to break an old horse of a bad habit. The horse usually gets his tongue over the bit. I have used to very great advantage a curb bit, and found it prevents the horse from getting his tongue above the bit.

Another method that is considered a reliable remedy and makes it impossible for the horse to get his tongue on the outside of his mouth, is to take a small strap and pass it over the top of the tongue and buckle it around the lower jaw. This will prove to be quite an important preventive, as it has been used with success.

HOW TO MAKE A HORSE LIE DOWN.

It is necessary sometimes to lay a horse down in order to perform an operation on him. I strap up his left fore-leg, and then I have a surcingle with a cupper and a ring, and put it on the horse so the ring will be on the right side of the horse. Then I take a small cotton cord, about fifteen feet in length, and three-eighths of an inch thick, tie it on the left hand side, in the ring of the halter, pass it through his mouth and back through the ring of the surcingle, and bring it forward; stand out in front of the horse, and pull his head around to the right side, close up to the surcingle. This process brings him down upon his left knee, from which position he is caused to lie down. This mode of throwing a horse down is the simplest and best known in the profession. Besides knowing of this excellent method of throwing a horse, we also have knowledge of the fact that throwing a horse several times successively will completely conquer him, and make the most vicious animal submissive, as it

does not take more than a few minutes to worry him out, so he will not care to oppose you, and you can handle him at your will.

THE TRICK HORSE.

As tricks are all easily taught, any one can train a horse to perform tricks by having patience and taking time, and endeavoring to make him understand just what you are desirous of having him do.

TO TEACH A HORSE TO LIE DOWN.

You must always throw him down, and remember to say the words, "Lie down, sir!" as he falls, so he will become accustomed to hear the words while he goes through the motion of lying down. Give him a lesson every day until he has thoroughly learned that he must lie down just when he hears the command, "Lie down, sir!"

HOW TO TEACH A HORSE TO SIT UP.

After he has learned to lie down when he is bidden, it is a very easy matter to teach him to sit up, by having around the flanks a surcingle, and getting a couple of stout men to hold him down behind, while you work him up gently in front, by the bridle. Caress him on the neck until you convey the idea that a sitting posture is the one desired. After you have made him understand that he is to obey just what you command him to do, you will experience no more trouble with him.

TO TEACH A HORSE TO SAY "YES" OR "NO."

To teach a horse to say "no," you must take a pin or some sharp instrument, and prick him on the top of the neck. When he feels the prick of the pin, he will shake his head, and by accompanying the motion by some word or question, he will become accustomed to

shaking his head, when he hears the words and sees the motion, because he will think he is going to be pricked with the pin. In the same manner you can teach him to say "yes," the only difference being in the motion, as you will have to prick him in the breast, and he will make a motion with his head which answers for yes. For instance, if you wish to hold conversation with him, say: "Would you like to have a drink, sir?" at the same time throwing your hand over his neck as if to prick him. This motion will cause him to shake his head, and then you can say: "You are a temperance horse then, are you not, sir?" throwing your hand down in front of his breast. This motion will make him say "yes." You can go on in this manner and hold any conversation you may wish.

To teach a horse to tell his age by pawing, you must take some sharp pointed instrument and prick him on the fore-leg, at the same time holding him by the bridle bit, and begin to count as follows: "One, two, three, four," and when you have come to the number at which you wish him to answer, you must jerk his head up, and by so doing, you convey to his mind the idea that when you count he must paw.

HOW TO BREAK A HALTER-CHEWER.

This may be done by making a strong solution of capsicum, and soaking the halter in it. The animal will soon learn not to chew this kind of a halter.

I claim no especial credit for the business of horse-training or taming; but, as a number of people think it important to understand how to break a horse, I have given the best theory on the subject within my knowledge. Some think there is great virtue in horse-taming medicines, and others are of the opinion that a

great benefit may be derived from the use of the castor or wart on the horse's legs. These are taken and pulverized, and the powder blown into the nostrils of the horse, after which, the animal is supposed to become entirely submissive; but in my opinion, this is nothing more than the sheerest nonsense.

The horse taming medicine consists of a combination of the oil of rhodium and oil of cumin, in equal portions. This I also pronounce to be perfectly spurious.

JOCKEY TRICKS.

I give some of these because some persons think them valuable, and not because I think them to be of any account, as I condemn them in every instance, and I think the practice of them is utter folly.

One is to make a horse refuse to eat when food is offered him. This is done by greasing the roof of the horse's mouth with tallow. Another one is to give a horse the glanders, the secret of this is to pour fresh butter into the animal's ears, so it will run out at the nostrils. This is all humbug to begin on, as there is no opening between the ear and the nostrils.

Another one is to cure the horse of the heaves, this is done by giving the horse a half pint of fine bird shot. They say this will stop the hard breathing for two hours, but in my opinion, this is cruelty to the horse, and should never be done.

Another trick is to make a horse go lame. This is done by threading a horse hair through a needle, and passing it through the cord of the horse's leg, and cutting the ends off on each side; this causes an inflammation, and the horse will go very lame. A man that would be so heartless as to inflict so much unnecessary pain upon a horse, should be punished by law.